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# MEASURE

*A Critical Journal ~ Published Quarterly*

Volume I WINTER 1950 Number 1

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ROBERT M. HUTCHINS *T. S. Eliot on Education*

BERNHARD GUTTMANN *Europe's Balance Sheet*

JOHN U. NEF *The Enlightenment and the Progress of War* Part I

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C. F. von WEIZSÄCKER *The Experiment: Its Nature and Its Limits*

ROBERT REDFIELD *Social Science Among the Humanities*

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JAWAHARLAL NEHRU *The State of India*

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Editorial Office: 1126 East 59th Street, Chicago 37, Illinois.
Unsolicited manuscripts should be accompanied by return postage.

Subcriptions should be sent to: Henry Regnery Company
20 West Jackson Boulevard
Chicago 4, Illinois

$1.00 a copy; $3.50 a year; 2 years, $6.00
Foreign orders $.50 extra
Published quarterly by Henry Regnery Company


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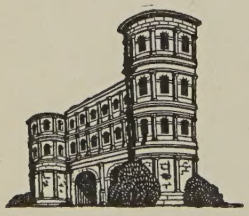

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Measure: *A Critical Journal*

VOLUME I ~ WINTER, 1950 ~ NUMBER I

# T. S. ELIOT ON EDUCATION

*Robert M. Hutchins*

T. S. Eliot has performed a valuable service in reminding us, in *Notes Towards the Definition of Culture,* of the limitations of education. He points out that education is only one agency that has the function of transmitting culture and that it cannot transmit it all. He observes that education can do its part only if other agencies and institutions are in harmony with it. He shows that one reason why schooling has been prolonged is that we do not know what to do with young people. He raises the question whether facility of education may not breed indifference to it.

The importance of Mr. Eliot's service can be measured by the extent and intensity of the delusions he attacks. In spite of the disappointments of the last fifty years education is still regarded as a cure for all the ills of society. Yet the competition of what are called the media of mass communication, the last and most menacing of which is television, has steadily reduced the influence of the educational system. We must agree, too, that raising the school-leaving age and opening education to all are undesirable unless the children and young people affected by these changes actually accomplish something in the educational system that is good for them and for society. Neither the proportion of youth in school nor the length of their stay there is, as we have commonly supposed, an infallible index to the cultural level of the population.

When Mr. Eliot discusses what education is, what it is for, and what it should be composed of, he is less helpful. The object of this paper is

to indicate the questions with which one reader hopes that Mr. Eliot will deal once more and at greater length. Important as the limitations of education are, and much as we need to be reminded of them, these other questions are more important still, and any light that Mr. Eliot's powerful intelligence can shed upon them will be most welcome.

Mr. Eliot is a little scornful of current writings on education. One reason is that the writers seem to feel that before entering upon any consideration of education they must state the purpose of education. This Mr. Eliot deplores. He appears to think that attempts to define education may be condoned as "quite a different thing" from stating its purpose, and offers the definitions in the Oxford Dictionary.

We may be permitted to suppose that Mr. Eliot is really deploring the purposes that certain writers present, rather than their search for purposes; for education is a practical activity, and one of the central elements in the definition of such an activity is surely its end, as the dictionary definitions that Mr. Eliot gives reveal.[1]

By refusing to define education further, or to state its purposes, Mr. Eliot leaves himself free to complain of the statements of others; but, as might be expected, he cannot write fifteen pages on education without saying more than once, at least inferentially, what the purpose, or definition, of education is. His renunciation of the statement of purpose merely serves to make his statement scattered and self-contradictory; whereas, if he had not begun by condemning the statement of purpose, he might have set himself to making a good statement of his own.

Mr. Eliot seems about to give us a statement of his own when he says, "It would be a pity if we overlooked the possibilities of education as a means of acquiring *wisdom;* if we belittled the acquisition of *knowledge* for the satisfaction of curiosity, without any further motive than the desire to know, and if we lost our respect for *learning.*"

But Mr. Eliot soon deserts this conception of education, if he ever adhered to it, for he holds that there is such a thing as too much education and that it can produce unhappiness. It seems unlikely, at least in our day, that men can have too much wisdom, or knowledge, or respect for learning. Mr. Eliot can hardly mean that modern man is likely to be unhappy because he has too much education in this sense. He says,

> To be educated above the level of those whose social habits and tastes one has inherited, may cause a division within a man which interferes with happiness; even though when the individual is of superior intellect, it may bring him a fuller and more useful life. . . .

[1] "The Oxford Dictionary tells us that education is 'the process of bringing up [young persons]'; that it is 'the systematic instruction, schooling or training given to the young [and, by extension, to adults] in preparation for the work of life'; that it is also 'culture or development of powers, formation of character.'"

This also suggests that Mr. Eliot has deserted wisdom, knowledge, and respect for learning, because it is improbable that having more of these than others could lead to a division *within* a man, even though it might cause some separation between him and those whose social tastes and habits he had inherited.[2]

Much the same comments may be made on Mr. Eliot's warning against the education of too many people. It seems impossible that too many people can have wisdom, knowledge, and respect for learning or be equipped to lead full and useful lives. With staff and facilities of a given size, the educational system must of course be careful not to try to accommodate more people than it can really educate. But Mr. Eliot's warning should not persuade us to relax our efforts to increase the staff and facilities. We may be sending too many people to school; but no American will have difficulty in forming the rudimentary notion that there may be a difference between schooling and education. The question whether it is possible for a man to have too much education and the question whether it is possible to educate too many people depend on what we mean by education.

The problem of discovering what Mr. Eliot means is made more difficult by his remarks on the relation of education to the form of government under which it is carried on. He criticizes Dr. Joad for saying that one of the objects of education is to equip the pupil to play his part in a democracy. Mr. Eliot feels that this is a "necessary adaptation" of the pupil to his environment if a democracy is what he is to play his part in. If not, it is making the pupil instrumental in bringing about a social change that the educator has at heart. "This is not education, but something else."

Mr. Eliot goes on:

> I am not denying that democracy is the best form of society, but by introducing this standard for education, Dr. Joad, with other writers, is leaving it open to those who believe in some other form of society which Dr. Joad might not like, to substitute . . . some account like the following: "One of the purposes of education is to equip a boy or girl to play his or her part as the subject of a despotic government."

Dr. Joad wants to prepare the young to play their part in a society that Mr. Eliot admits, or does not deny, is the best, and finds himself accused of being a model for those who want to prepare them to play

[2] Mr. Eliot's account of happiness is somewhat perplexing, because it appears from it that a man can lead a full and useful life and be unhappy. Yet a full and useful life is not far from Aristotle's definition of a happy life; and it would seem that Aristotle was on the side of common sense. A man who leads a full and useful life may not be free from irritations and annoyances, one of which may be that he is alienated from those whose social habits and tastes he has inherited; but it is doubtful whether any son of Adam is entitled to expect anything more of his earthly pilgrimage than that it be full and useful.

their part in the worst. Yet Mr. Eliot, and not Dr. Joad, led us to believe that education must necessarily adapt the pupil to his political environment, good or bad.

The confusion here results from the failure to define education or to state its purpose. Every society must have some system that attempts to adapt the young to their social and political environment. If the society is bad, in the sense, for example, in which the Nazi state was bad, the system will aim at the same bad ends. To the extent that it makes men bad in order that they may be tractable subjects of a bad state, the system may help to achieve the social ideals of the society. It may be what the society wants; it may even be what the society needs, if it is to perpetuate its form and accomplish its aims. In pragmatic terms, in terms of success in the society, it may be a "good" system.

But it seems to me clearer to say that, though it may be a system of training, or instruction, or adaptation, it is not a system of education. The purpose of education is to improve men. Any system that tries to make them bad is not education, but something else.[3] If democracy is the best form of society, a system that adapts the young to it will be an educational system. If despotism is a bad form of society, a system that adapts the young to it will not be an educational system, and the more it succeeds in adapting them the less educational it will be.

Mr. Eliot's confusion appears in highly concentrated form in two sentences. He says,

> In earlier ages the majority could not be said to have been 'half-educated' or less: people had the education necessary for the functions they were called upon to perform. It would be incorrect to refer to a member of a primitive society, or to a skilled agricultural labourer in any age, as half-educated or quarter-educated or educated to any smaller fraction.

In the first place, Mr. Eliot's essay seems to be about "that limited system of instruction which the Ministry of Education controls, or aims to control." In earlier ages that system had little or nothing to do with the majority, and skilled agricultural laborers did not acquire their skill from it. In earlier ages men learned to perform their economic functions by apprenticeship. We can discover nothing about what the educational system should do today from the usefulness of individuals in the past who were not in the system then and who were not taught to be useful by it.

In the second place, Mr. Eliot seems to be talking here about learning a vocation, even though those whom he is talking about did not learn their vocations in the educational system. He elsewhere congratulates

[3] So if a law is an ordinance of reason directed to the common good, an enactment that is not an ordinance of reason or that is not directed to the common good is not a law, but something else.

Dr. Joad on bringing forward the "simple and intelligible notion" that one of the objects of education is to equip the pupil to earn a living. Yet on a later page he regrets that we are "more and more abandoning the study of those subjects by which the essentials of our culture—of that part of it which is transmissible by education—are transmitted," and it is unlikely that he is thinking here of vocational subjects. Certainly any one who has struggled with the question what the schools can do to equip young people to earn a living must conclude that the notion is less simple and intelligible than it looks.

In the third place, every man has a function as a man. The function of a citizen or subject may vary from society to society, and the system of training, or adaptation, or instruction may vary with it. But the function of a man as man is the same in every age and in every society, since it results from his nature as a man. The aim of an educational system is the same in every age and in every society where such a system can exist: it is to improve man as man.

Finally, every man has a function as a citizen or subject of the society in which he lives. One reason why the Ministry of Education or its equivalent had so little to do with the majority in earlier ages was that their political function was so slight.

Democracy is the best form of society. This Mr. Eliot does not deny. The function of the citizen of a democracy, as Mr. McIlwain has put it, is ruling and being ruled in turn for the good life of the whole. In a democracy the good man and the good citizen are identical. Therefore the system of public instruction or training can be an educational system: if it aims to make its pupils good men, it will make them good citizens. Since in a democracy all men are rulers, all men must have the education that rulers ought to have.

Mr. Eliot's chief complaint of other writers on education is that they seek to use the schools to achieve social purposes they have at heart. Then he falls into the pit he has digged for others: he wants to use the schools to advance social purposes of his own. Mr. Eliot wants a society that has both the class, those who have inherited advantages, and the élite, those who have ability. And so, after anathematizing writers on education who seek to obtain the society they desire through the schools, Mr. Eliot says, "Education should help to preserve the class and select the élite." Since this would be bringing about a social change that Mr. Eliot has at heart, it would not, according to his criticisms of other writers, be education, but something else. Nor does it conform to my view of education; for in that view the only true education is that which aims at a social ideal that can be achieved by the improvement of men. The improvement of men is irrelevant to the preservation of the class and the selection of the élite; for the class can be stupid and wicked, and the élite can be wicked.

Mr. Eliot regards the doctrine of equality of opportunity as the most mistaken and dangerous dogma put forward by writers on education. His first method of criticizing the doctrine is to overstate it. He recoils from an educational system that would "automatically" sort everybody according to his native ability and that would tend to restrict education to what will lead to success in the world and to restrict success in the world to those who have been apt pupils of the system. He says, "The prospect of a society ruled and directed only by those who have passed certain examinations or satisfied tests devised by psychologists is not reassuring."

The prospect is indeed a horrid one; but I do not see what it has to do with equality of opportunity. As applied to education, that doctrine means that everybody should have equal access to the system that is supported by the community. That is all there is to it. It does not compel acceptance of the notion, which is new to me, that the system can "automatically" sort out people, or that we must look forward to a society ruled and directed only by those who have passed certain psychological or other tests, or that the system can hope by its own efforts to restrict success in the world to those who have been its apt pupils.

A society and an educational system that cherish the ideal of equality of opportunity may be imperfect and may be carried away by psychologists, vocationalists, or faddists of a lower order. This does not follow from the ideal of equality of opportunity, but from the imperfection of the society and its educational system. In the United States, where the ideal of equality of opportunity has been pursued longer than anywhere else, none of the consequences predicted by Mr. Eliot has appeared. The country shows no signs of limiting success in the world to those who have been apt pupils of the educational system. The United States is not ruled and directed only by men who have passed certain examinations or satisfied tests devised by psychologists; it is not ruled and directed by such men at all. Nor has the educational system shown a tendency to restrict education to what will lead to success in the world, if success in the world means ruling and directing society.

Mr. Eliot says that equality of opportunity is

> an ideal which can only be fully realised when the institution of the family is no longer respected, and when parental control passes to the State. Any system which puts it into effect must see that no advantages of family fortune, no advantages due to the foresight, the self-sacrifice or the ambition of parents are allowed to obtain for any child or young person an education superior to that to which the system finds him entitled.

This is more than an overstatement; it is a reverse twist. The object of the proponents of equality of opportunity is not to deprive those who have advantages, but to offer something to those who are without them.

It is true that one way to equalize opportunity would be to reduce the opportunities of those who had advantages. But the only way that has occurred to most advocates of equality of opportunity is to increase the opportunities of those who are without advantages.

When the democratic state supports a system of education, it is not wrong for it to say that it will open that system to all equally and that no advantages of family fortune shall entitle any child or young person to better treatment at the hands of the system than any other. No American advocate of equality of opportunity would argue that the rich should be forbidden to set up schools of their own, which might turn out to be superior to those supported by the State. The American advocates of equality of opportunity hold that all men have the right to the opportunity of education; that the State must provide this opportunity; that, so far as humanly possible, the opportunity provided by the State must be open to all on equal terms; and that progress through the system supported by the State, like admission to it, should depend upon the merit of the individual and not upon the accident of birth or station.

The American advocate of equality of opportunity would indeed complain of separate educational institutions for the rich if those institutions, by law or custom, monopolized the avenues to success in the world, as has sometimes appeared to be the case in England. Such privileges are not the necessary consequence of differences in educational opportunity; for they have not attached to the graduates of those American universities which are chiefly frequented by the children of the wealthy. So the abolition of such privileges is not the necessary consequence of equality of educational opportunity. It would be possible to have equality of access to the educational system that was supported by the State and at the same time limit certain opportunities in the public service to the graduates of Oxford and Cambridge.

Whether opportunities in the public service should be reserved to those who have certain inherited advantages is a question of politics, not of education. In politics Mr. Eliot is a direct descendant of Edmund Burke, one of whose less temperate comments on the French Revolution he quotes with approval. Burke, though a member of the élite, was a spokesman of the class. Like Mr. Eliot, he wanted both the class and the élite; but, like Mr. Eliot, he was more interested in the class than the élite and regarded the élite with a skeptical and fearful eye. His shortest definition of Jacobinism is that which appears in *Letters on a Regicide Peace:* "Jacobinism is the revolt of the enterprising talents of a country against its property."

It was natural that Burke should devote less attention to education than any man of comparable philosophical pretensions in modern times. It is natural that Mr. Eliot should be attracted to the limitations, rather

than the possibilities, of education. For those who are concerned first of all with the preservation of the class must regard education, in any definition except that of training for functions that the class does not wish to perform, as a force working against the achievement of their social ideal.[4]

The difference between Burke and Mr. Eliot is that Mr. Eliot does not deny that democracy is the best form of society. Burke did. His favorite objects of satire were the sovereignty of the people and the rights of man. Though wrong, he was consistent. Mr. Eliot is both wrong and inconsistent.

Mr. Eliot seems to think that it is possible to talk intelligibly about education without coming to terms on basic issues, as when he says, in disposing of the suggestion that education should prepare the pupil for the good life, "What the good life is, has been a subject of discussion from early times to the present day." All educational systems are based upon some conscious or unconscious, correct or incorrect, formulation of what the good life is. The question cannot be tossed aside as irrelevant or unanswerable. We have to try to answer it as best we can. Otherwise the educational system will reflect, because it must, our unexamined, inherited, amateurish, or merely fashionable notions of what the good life is.

We can learn from metaphysics that man has intellectual and moral powers. Education should make its contribution to the development of those powers. We can learn from theology that man has a spiritual nature. Education should do what it can to perfect that nature. We can learn from politics that democracy is the best form of government, a conclusion reinforced by metaphysics, which leads to the rights of man, and by theology, which teaches that all men are brothers because they are all sons of God. Education should help all men to prepare themselves for their task of democratic ruling. The aim of education, as distinguished from training, adaptation, or instruction, is the improvement of all men as rational, moral, spiritual, and political beings.[5]

The purposes of education do not originate in the educational system. Still less are they determined by the prejudices of educators or of writers on education. They are fixed by the nature of man.

[4] If, for example, the educational system set out to teach everybody wisdom, knowledge, and respect for learning, some social change would undoubtedly occur, and it is unlikely that it would be in the direction of the preservation of the class. A system of vocational training, however, can be very handy for this purpose.

[5] This paper does not purport to answer the question how and to what extent education can contribute to the improvement of men as rational, moral, spiritual and political beings. That is the educational question, which can be satisfactorily answered only when we get our metaphysics, ethics, psychology, theology, and politics straight enough to think straight about it.

# EUROPE'S BALANCE SHEET

*Bernhard Guttmann*

THE EUROPE which was shattered in August 1914 by the declarations of war by the five great powers was still resting on the foundations erected a hundred years before, even though the building had long shown many cracks. The pattern of states effected by the Vienna Congress had ostensibly been the restitution of that earlier pattern abolished by the French Revolution and the military empire which had emerged from it. But in point of fact, it was no longer possible to return to the eighteenth century. Before the Revolution, it had been thought that mankind had finally arrived at the threshold of a new and better phase of its development. By divine ordinance or by natural inclination there seemed to exist a tendency toward peaceful, reasonable symbiosis which, in the past, had been unable to succeed only because of the ignorance of the majority, but which from now on was bound more and more to assert itself.

The thought of the Middle Ages, rooted in the Christian conviction of the essential imperfection of man and in the yearning for its completion by divine grace, seemed to be waning at that time; its place was taken by the faith in the imminent perfectness of this world, set forth in its purest form in the philosophy of Leibniz: there is recognizable in the universe a *harmonia praestabilita,* and with all its imperfections, the existing world is still the best which could have been created. Since man cannot be excluded from the universal law of harmony, he must be destined for reason, freedom, and justice. They present the core of the essentially human.

Voltaire returned from England to France with a philosophy of this kind, adorning it with his own spirit and the grace of his language. As the most ardent prophet of that philosophy, Rousseau harangued his century about the high quality, hence the inborn rights, of man. In distant Königsberg, the rationalism of Immanuel Kant was kindled by the same ideas. The progress of the human race, wrote Kant, had now become so visible that one is entitled to expect "a church eternally

uniting all mankind and representing in a certain sense the Kingdom of God on earth."

Never again did there appear in Europe so confident a faith in the perfectibility of man and hence his institutions. The twenty-five bloody years which followed the storming of the Bastille discredited that hope. But even earlier, this faith had been carried to America, where, in the Declaration of Independence, it became that political force which it still remains on the new soil.

On the old continent, on the other hand, it was a less well-meaning ideology which determined the main decisions. The harmony which had once been perceived at least as a distant vision was now replaced by the dominating experience of dissonance, and the conflict of interests became the directing force. It is true, liberalism sought for a long time and not without success to maintain the ideas of *humanitas,* tolerance, and freedom. In certain periods and countries it even directed the government; but even liberalism had no longer any basic faith in the insight and goodness of man.

Within the framework of European liberalism the English variety had undergone its strongest and most fruitful development, not exactly because of its theoretical consistency, but because it was more able to reconcile the new tendencies with the old and therefore could achieve most. The clearest thinkers among the English liberals, coming from the school of Bentham, had little use for any abstract freedom or justice. We need only recall Bentham's judgment on the "Declaration of the Rights of Man and the Citizen" as adopted by the French Constituent Assembly: "All men born free? Absurd and miserable nonsense. 'Natural rights' is simply nonsense; natural and imprescriptable rights, rhetorical nonsense, nonsense upon stilts." If there are no inborn human rights, everyone must attune his demands to the advantage of as many others as possible; usefulness is the guiding principle; the greatest happiness of the greatest number becomes a maxim of state.

At the same time, the older optimistic world view was generally pushed back by a keener exploration of nature and history. The nineteenth century, as a whole, thought like Malthus, who replaced the doctrine of the harmony of the universe with the melancholy statement that constantly many more creatures of the same species are being born than find nourishment, and that with the existence of man, famines, plagues, and wars become indispensable. This idea led Darwin to the thesis of the universal struggle for survival, and no other term has been more characteristic of modern Europe. The proletariat avidly seized this slogan. Marx, who dominated socialism, did not dream of supporting the demands of the working class by the appeal to freedom and human rights. He perceived no harmony except in the struggle of

classes. His aim was the revolution from which emerges, not democracy, but the dictatorship of the masses. Ideas of violence began to dominate the old continent as it was drifting toward the first World War. Even within the states, the ideas of moral solidarity and sympathy lost their binding power despite all measures of social legislation. In the relations of the great nations—it was the big nations capable of waging war that counted, not those which for the sake of their security were neutral or pacifistically inclined—national selfishness was forever on the increase.

This new nationalism, the "sacro egoismo" of Mussolini's forerunners, was not the child of man's natural attachment to home, language, and tradition; it was expansive, striving to be satisfied in all cases and at the expense of others. If the witness of these times recalls the beginning of the current century, the World War appears not, as many people preoccupied with literature and science thought, as the disruption of an intrinsically healthy and promising condition effected by the bad will of a few men. The war flashed, lightning-like, from an atmosphere in which the storm had long been gathering; and the only miracle was that it could have been delayed so long.

From the viewpoint of the history of ideas, the origin of the great culture of Europe was ecclesiastical and aristocratic, and it is this past which, to the present day, obstructs its adaptation to an entirely changed age. The declarations of the victors of 1945 seem to be based on the assumption that in Germany alone there is to be found resistance to what is usually referred to under the general name of democracy. In truth, the ideological structure of all countries of Western and Central Europe is based on the obsolete assumption that the large majority composed of those who work with their hands is subservient and that only a minority has the privilege to rule, to question, and to write. An education, an orientation of consciousness, that has been moulded by two thousand years has not yet been shaken off. As philosophical ideas, human equality and intellectual freedom have kindled enthusiasm; they have not yet been able to transform a collective existence rooted in the past.

During America's struggle for independence, the ideas of the eighteenth century became wedded to the emerging national spirit and gained a formative influence upon it. The conviction that men, and indeed each individual man, must be offered the opportunity of developing his gifts has taken an ever firmer hold, leading even two or three generations after Washington and Jefferson to a struggle for the civic equality of a greatly underprivileged element of the nation. The European nations have produced great poetry of freedom, but a democracy like that proclaimed in Walt Whitman's songs (the egalitarian undercurrent of which is indicated by the title, *Leaves of Grass*) is not entirely

congenial to Western European sentiment; more so, perhaps, to the Russian. The class distinctions in American life have been produced mainly by differences in property—they hardly originate before the period of industrialism. In Europe on the other hand, very important and genuine values of life have their origin in a much older phase of thought and sentiment, in which society was ordered, not horizontally but vertically—a social hierarchy which was once looked upon as divinely ordained and which even today has not lost its spiritual sanctions.

One thing had united the discordant Europe of 1914: the conviction that the earth had to be ruled and economically exploited by the occidental race. Around 1900, Cecil Rhodes reflected this conviction in his will, in which he provided the means of educating young Britishers, North Americans, and Germans at Oxford in the spirit of western imperialism, thus training, as it were, a class of pro-consuls for the entire globe.

Among European countries with strong overseas interests, Great Britain, France, and Germany were most prominent. The administration of the colonial state was only a part of those interests, and for Germany at least, the less important part. Most of the tribute from the foreign continents was composed of the products of enormous, forever increasing European capital investments. The instinctive tendency was to localize the manufacture of these products as much as possible in Europe, so as to secure for it a monopoly of the production of high quality goods, while other continents were to remain in the position of suppliers of raw material. The development of American industry had long demonstrated the futility of this tendency, but on the part of the Europeans this led only to increasingly violent efforts to maintain their position in such markets and to occupy them by force. While western labor fought bitterly for higher wages at home, it received its share from the surplus yielded by the labor of the distant, underpaid yellow, brown, and black proletariat. The conviction that three fourths of mankind had been created to acknowledge as masters and to feed adequately the other one quarter had come to dominate all classes of Europe. Gandhi said he was fighting not England but the spirit of Europe.

The first World War destroyed the economic superiority of the Europeans, forcing them to divest themselves of their possessions overseas, and leaving them deeply in debt while the United States became the sole creditor. The war did not at once put an end to the imperialist self-deception. The Allies seized the colonial possessions and claims of Germany, and to the superficial glance it might have appeared as if there were simply one world power less. Such delusions prevented a quick closing of ranks which might have saved what remained of European civilization.

An overall authority with adequate functions and powers ought to have been created at Versailles. President Wilson, who was not lacking in perception, was diplomatically not the equal of the veterans of Western Europe, and the League he created was, from the beginning, a knife without a blade. But if the leading politicians opposed a firmer commitment, which would have been beneficial, it became more and more apparent that the idea of authority was gaining the acclaim of the masses.

As long as Europe was getting richer and richer, the social question could be glossed over by palliative measures. The economic development before 1914 had strengthened capitalism and rendered its position more and more independent, while transforming independent and semi-independent individuals into wage earners; but the general improvement of material conditions prevented the sharpening of the conflict within society. As a result of the rapid impoverishment, all this changed radically. Since then, that is for one generation, Europe has been divided into two ideological and political camps which hate each other. In some countries one of the extreme parties has gained absolute power, in others the struggle is undecided.

Where Communism or Fascism conquered, they immediately established a dictatorship. Freedom, where it is still legally recognized, leads a troubled and threatened existence between the extremes, unable to reconcile the difference between the bitterly hostile ideas: in point of fact, the two dictatorships have more in common with each other than either has with democracy. That became palpable in 1940, when the alliance of German and Russian despotism, after their military successes, transformed the entire continent into a concentration camp.

On the other hand, because of its greater fear of Communism, democracy has for a long time not only tolerated but favored Fascism. Democracy sacrificed its political principles in an effort to maintain the traditional social pattern. It was first Mussolini who prospered as a result of this somewhat uneasy sympathy; later German and Italian support enabled Franco to seize Spain; and Hitler, the worst of all, flourished and increased in the occidental sun. His immense war preparations were known and probably welcomed because of the illusion that he was planning war against Russia only, and that this would mean the ruin of both despotisms while the West would stand by as *tertius gaudens*. With Europe what it had become, it was almost a matter of course that Hitler was permitted to destroy the German Jews, since that was "an internal affair," to meddle with which would have contradicted the sacred right of the state. Hitler was likewise permitted to devour Austria, then Czechoslovakia. To us who witnessed the disgraceful "Pact of Munich" from which Chamberlain thought he brought back "peace

in our time," the words which Churchill uttered in the House of Commons are also unforgettable: that friendship with barbarous paganism runs counter to all Christian ethics. Over Western European democracy he delivered the biblical sentence, "weighed in the balance and found wanting."

Has this deliberate *mene tekel* been invalidated by the German collapse of 1945? The intellectual and moral paralysis which has taken hold of Europe after it has survived, maimed and dazed, the second World War, is very significant. Where democracy still rules, its survival is the result of compelling circumstances, which make unrestrained opposition appear undesirable even to its enemies. But this democracy lacks the vitality of youth, while the extremists, clandestinely and openly, continue their appeal to instinct. The classical example is offered by France, which of all European countries comes nearest to being the birthplace of the ideas of freedom, of equality before the law, of the value of the individual. Since the war, the legitimate government has had to defend itself against a strong undercurrent akin to Fascism, maintaining itself skilfully though painfully through tactical maneuvering—a respectable accomplishment of experienced parliamentary diplomacy but reflecting no drastic decision of the public mind.

To the fundamental problem of reconciling free government with the overwhelming onslaught of social needs, the continent has no response sufficiently clear to warrant speaking of the presence of a general European will. An energetic and consistent attempt to effect an enduring synthesis between democracy and socialism has been undertaken in the British Isles. The outcome of this great experiment will establish a precedent for all. Europe is unlikely to find its way back to a lesser degree of state control than that which this moderate trend of socialism wants to introduce, and as a whole the public is aware of this fact. The parties which still demand a return to real economic liberalism, complete emancipation of the individual and his initiative, have become very weak. For Europe, no end of the subjection of the person to the state can be foreseen.

In our time it is not even quite certain whether it is still possible to speak of Europe in a sense other than a purely geographic one. Do the English feel more akin to the Italians or Czechs than they do to the Americans? Even the claim that before the World Wars Europe had thought of itself as "the Christian occident" would be untrue. The only thing common to the nations west of Russia was the consciousness that they mutually possessed the highest scientific development and the most efficient technical equipment, hence the wish to make other continents and races pay tribute for these. That superiority has long since vanished, but another and better bond is not recognizable. Perhaps the

selfishness which has destroyed so much has become somewhat less arrogant after the obvious results of a nationalism run amok. But one would experience great disappointment if one believed that this selfishness has been abolished. Hence, one should guard against the creation of new hotbeds of danger. The bitterness engendered by Hitler's Germany is understandable, but it was not wise to inflict upon the German national sentiment such a wound as that of cutting off vast territories in the east of their country. The expulsion of residents by Russians and Poles, the masses of refugees, and finally the splitting up of the remainder of Germany between the Atlantic and the Soviet worlds do not allow the German nation to calm down. Since Germany is an integral part of Europe, the entire world may sooner or later be faced with the repercussions of an impossible situation; what forms these repercussions may take cannot yet be foreseen.

Even under better conditions, it would be very difficult to abolish the individualities of the several nations in favor of a European consciousness. The variety of languages alone is a great obstacle. There are ten or twelve highly developed tongues west of Russia, each with an ancient literature preserving the thought of a thousand years. The history of the last generation has, for purely sociological reasons, further widened this chasm between the nations by ruining the multi-lingual classes. The aristocrats and the well-to-do bourgeoisie knew, through travel and reading, more about foreign countries and found it much easier to make themselves understood abroad than do those classes whose influence is decisive today. In the salons one conversed simultaneously in French, German, English, and Italian, whereas at international labor congresses each national group sits by itself and the interpreters of their speeches are the only cosmopolitans.

The European mind has for centuries been largely educated through scientific perception; it was increasingly formed by analytical methods, surrendering more and more faith in inborn inalienable values with which man is endowed. Science can admit truth only with the reservation of continuous re-examination. Hence, everything that can be thought receives a conditional character. The average European of today is as agnostic in regard to ideas, including political ideas, as he has long been in regard to religion. This atrophied ability to concede to the spiritual full reality and hence power over man's existence could be regained only by a revival of the religious spirit which would reach to the very roots of the nations. Economic and constitutional measures like those envisaged by the Marshall Plan will by themselves be unable to restore Europe's inner vitality. As is customary in times of grave crisis, many people speak even today of a great Christian revival; and imposing international religious congresses seem to substantiate this claim. But

such phenomena should not be over valued. In many countries there exist parties which, for political and therefore very earthly reasons, have embodied Christian slogans in their programs; in some cases such parties have even achieved control of the government. But the alliance with ecclesiastical institutions is not yet evidence of a new and genuine religious feeling. On a continent where everything totters, one seeks to find support in whatever seems to remain solid—an understandable political stratagem, but no renaissance of faith. Someone well able to understand these connections pronounced the judgment that no signs of a religious revival were visible. "The great majority of our people still dismisses religion as something that has nothing to do with our daily lives." This opinion was voiced by the Anglican Archbishop of York; and it is altogether unlikely that in other European countries there exists a situation different from that in England.

Within a single generation the old continent which once arrogated to itself the guardianship of the entire globe has not only been driven from that position but has become the ward of America. The change has been accomplished too rapidly to have been psychologically and intellectually absorbed: the pathological aspects of the situation are obvious. Even if we disregard the nations which materially have suffered most, to what pass has even victorious Great Britain come? Here, where only a few generations ago so much wealth had been amassed, there are today, according to the London *Times,* only forty-five people out of the whole population who are left with a net income above £6,000 per year.

With the precariousness of all institutions, even the political forms lack that sentimental "holiness" which was attached to them in more stable times. Europe has to pay dearly for the ideological indecision of the 19th century. It neglected to assure, for the already developed ideas of freedom and human dignity, enduring validity in living historical institutions. The slogan "liberty and property" once appeared to offer adequate guarantees for the future. Now that "property" has disappeared, all classes lack the necessary education for a "liberty in poverty."

But the wind bloweth where it listeth; hence it might happen after all that its wealth of spiritual energies might enable Europe to shake off that fatal relativism of thought and return to that freedom which is truly realized in the popular will, not merely confined to legislation. The East has decided to sacrifice the individual to the collective Moloch. There is at least the hope that in America the elemental feeling for the value of the human person has been preserved and, in the face of all obstacles, will prevail. It is this hope, far more than considerations of economic power, which turns the independent minds of weakened Europe toward the West.

# THE ENLIGHTENMENT AND THE PROGRESS OF WAR

## 1. The Citizen Soldier

*John U. Nef*

For Europe the decade of the seventeen-forties was a turning point in political and economic history, and also in the history of science and technology. It began with the accession of Frederick the Great as the third king of the increasingly powerful Prussian state, and with the accession to the ancient imperial throne in Vienna of the woman who became Frederick's principal political opponent in central Europe, the archduchess Maria Theresa. The most dramatic changes in European history during the seventy-five years that followed 1740 took place in France. In spite (and also because) of a rapid increase in wealth, with which the inconclusive dynastic wars hardly interfered, the temper of the French people turned in the mid-eighteenth century towards the social, political and economic reforms which helped produce the Revolution of 1789.

Conditions of limited warfare had prevailed in the west of Europe for some three generations preceding the seventeen-forties. They had encouraged feelings of relative security and of confidence in human nature which were partly specious. In so far as the restrictions on war were the result of material circumstances, such as the poor morale of the fighting men and the high cost of killing, rather than the result of human virtue and community of understanding, the restrictions were most precarious. By intensifying the social problem of the outcast—whether soldier or industrial worker—the age of limited warfare sowed seeds of class struggle. It divided the Europeans, in spite of the common culture which bound the nations together at the top. This division provided new issues destined to lead the Europeans to take wars more seriously. Again, during the age of limited warfare, the growth in the size of armies had

imposed a brake on war because of the scarce means available for supplying them. But once the production and distribution of commodities increased sufficiently to permit the continual renewal of the equipment, the weapons and the other munitions, heavy fighting by large bodies of soldiers (artillery, infantry, cavalry and engineers) and battles such as had seldom occurred during the late seventeenth and early eighteenth century, in which one side gains an annihilating victory, were bound to become more practicable.

Thus the wars which began in 1792 and culminated with the attempts of Napoleon to conquer Europe, grew partly out of circumstances which had accompanied the growing moderation of warfare during the eighty years or so before 1740. They grew also partly out of the prosperity and the intellectual changes which characterized European history during the later eighteenth century, especially during the fifty years from about 1735 to 1785, when wars were still limited in purpose and scope.

The revival of serious warfare in Europe, of a kind which had died out since the religious struggles, was partly a result of the combination of two different and apparently contradictory attitudes toward the common man. There was a disposition to treat him as a combination of beast and machine—a kind of subhuman creature. There was also a disposition to make an abstraction of him and to treat him as a pale sort of god.

The first treatment was in origin more Prussian than French, the second more French than Prussian. But the outlook and habits of one nation inevitably affect others, even nations which regard themselves as standing for an opposite outlook, as possessing the opposite habits. Nations which are in continuous communication with each other are interdependent. If the people of one country could only see their nation objectively from a distance, they would be amazed to discover how closely they resemble their enemies. In the eighteenth century, when travel and the exchange of knowledge had increased, when European society was again much more united than it had been during the age of religious wars, it was impossible to confine either concept of the common man within national frontiers.

The concept which developed primarily in Prussia influenced military conditions first. Unlike the French concept, it had behind it neither a Christian nor a humanitarian sense of responsibility for the humble, for persons ill-favored by worldly fortune. Little support for it could be found anywhere in the extraordinarily influential intellectual and artistic life of eighteenth-century Europe. Frederick William I, king of Prussia from 1713 to 1740, the modern founder of conscription and stern, efficient military discipline, was no thinker. He forced his son and heir, Frederick the Great, to witness the beheading of the son's con-

fidant, Lieutenant von Katte, for the crime of trying to assist the young prince in his wish to escape from his father's tutelage. In order to perpetrate this cold-blooded horror, the king set aside the more lenient verdict of perpetual imprisonment, passed by the court-martial he himself had designated.

In the treatment which Frederick William advocated for the soldiers, this relentless monarch made departures from what had been customary in the new and larger standing armies of the late seventeenth century. It was he who introduced the brutal discipline which forced the soldier to choose between battle (with its excitement and possibility for survival) and a fate more ignominious, terrible and certain than death in action. All kinds of punishments had been inflicted in earlier European armies—whipping, running the gauntlet, shooting, hanging, etc. But they had been inflicted haphazardly rather than methodically; in the French armies flogging had been abolished. Under Frederick William I execution for desertion, and for minor infractions of military regulations, daily flogging of varying degrees of violence, became inexorable rules of army administration rather than casual treatment arising out of local circumstances or out of the harshness of particular commanders. It is true that it was not this king but his son who, after his unhappy childhood and youth, first made use of the new Prussian war machine.

Frederick II, who was twenty-eight when he succeeded to the throne that he occupied for forty-six years, proceeded to employ the army in a more enlightened and restrained spirit than would have been possible for his father. A pupil of Voltaire, Frederick possessed from his youth a sense of the European culture which, with its polite manners and growing distaste for bloodshed, had done much to create the concept and to encourage the practice of limited warfare. One of his first acts as king of Prussia was to abolish torture as a legal means of extracting confessions in the small state which he governed as an absolute ruler. He was at much pains to encourage religious toleration. His military objectives were never boundless. After his disciplined Prussian soldiers, with grim faces and fixed bayonets, had routed the Austrian and Saxon armies in the War of the Austrian Succession, he contented himself in 1745 with the retention of Silesia, which Maria Theresa had ceded him three years before. War was causing more casualties than in the early eighteenth century, especially in central Europe. But the wars retained their dynastic character, their limited objectives, calculated in terms of economic gain or loss. Frederick the Great was unable or unwilling to revive the relentless, murderous pursuit of a routed army, a practice which had not been uncommon during the religious wars, but which was almost entirely abandoned before the end of the seventeenth century.

For all his culture and enlightenment, this famous king of Prussia,

whose reign promised to last almost as long as had that of Louis XIV, retained the harsh army discipline created by his father. He saw to it that the whole expanding economy of his growing kingdom revolved around the comprehensive military establishment which was a Prussian innovation, and which was destined to remain Prussia's pride. There was little exaggeration in the observation made on the eve of the French Revolution, apparently by the most eminent revolutionary orator, the Comte de Mirabeau (1749–1791): "Most States have an army; the Prussian Army is the only one that has a state." In that sense Prussia was the first country, after fighting for religion had ceased, to make a serious business of modern war with gunpowder. By doing so Prussia set an example for other countries.

Frederick the Great was much less belligerent during his old age than he had been in middle life; his country was still small in population and territory compared with France, and when he died three years before the French Revolution no other European state had in fact followed Prussia's military example fully. The position of France as a military power is revealed in the writings of the Comte de Saint-Germain, one of those eighteenth-century soldiers who served in several foreign armies as well as in the army of his own country. On the advice of the famous statesman-economist, Turgot, Saint-Germain was chosen in 1775 as French minister of war. He sought to revive corporal punishment, and to introduce in the French army the Prussian system of military discipline. Yet unlike Frederick, with his relatively small Prussian state and the system approaching modern conscription introduced under his father, Saint-Germain regarded the notion of an entire nation, or of its elite, in arms as a monstrosity. He retained the view, which had come to prevail in the age of limited warfare, that the armed forces, apart from the officers, should be composed of the men least fitted for other work, that the army should represent the dregs rather than the flower of the national manpower. In the memoirs which he composed during retirement, on the eve of shouldering the French ministry of war, Saint-Germain wrote: "It would undoubtedly be desirable if we could create an army of dependable and specially selected men of the best type. But in order to make an army we must not destroy the nation; it would be destruction to a nation if it were deprived of its best elements. As things are, the army must inevitably consist of the scum of the people and of all those for whom society has no use." That was then the actual composition of most European armies. In 1772 another military authority, J. A. H. Guibert, started a book on tactics and other aspects of military science with the observation that the profession of soldier had been abandoned "to the most vile and miserable class of citizens . . . a soft and timid multitude."

When combined in eighteenth-century Prussia with an approach to universal military service and with the use of mercenaries hired in the most unscrupulous ways from all the states of Europe, brutal army discipline helped to keep soldiers in the ranks and to maintain what was for so small a state as eighteenth-century Prussia an army of formidable size. But this discipline was incapable of generating an enthusiasm for battle such as was needed for the world wars of the twentieth century or even for the Napoleonic wars. Frederick the Great tried to raise the morale of the Prussian army by providing uniforms of good quality, and by looking out for the physical needs of the soldiers and especially the petty officers. Nevertheless the spirit of the men in the hour of battle was inadequate for the purpose of conquest. The picture drawn in *Barry Lyndon* by Thackeray, with his incomparable gift for recreating eighteenth-century Europe, is hardly overdone. We see a mob of miserable, unwilling soldiers, numerous old men among them, held in their places by continual blows (wielded by specially-appointed slave drivers, some of them mere boys) and by the threat of a bullet from behind to keep them from turning tail on the enemy. Soldiers fighting for Prussia, as for other states, lacked any sense of a special mission other than devotion to the prince, which was a very old conception fostered among ancient peoples and primitive tribes alike. It could be effective only in relatively small armies, when the prince could put himself under the direct scrutiny of the men and could share their hardships, as the earlier Swedish king-commanders Gustavus Adolphus and Charles XII had shared them in the more primitive battles fought in the east of Europe. Frederick the Great himself knew the limitations of the Prussian system of discipline; it left the soldiers, the mercenaries in particular, without any spontaneous desire to fight. On one occasion the king remarked: "If my soldiers began to think, not one would remain in the ranks."

Man is not simply a frightened animal. There are limits to the things he can be made to do by fear alone, limits which can be broken through only by appeals to his dignity, to the peculiarly human side of his nature. One of the most tragic developments of the past two hundred years has been the fostering of the idea that war is an ennobling spiritual experience, desirable for all men. So far as we are aware, the extension of the heroic view of war to the entire male population is new among civilized peoples. The warrior class was regarded with special esteem, even with something approaching veneration, in some earlier countries: in Sparta for instance before the Peloponnesian War, and again in Rome under the early Republic. The German tribes, which overran so much of the Roman Empire, are also represented as warlike by nature, and as reserving a full measure of respect for the warrior leader. The early Japanese imposed Bushido, an heroic code of honor, upon the *samurai*, a small

elite. But in all these cases, only a certain limited group was esteemed for its military prowess and courage.

A recent classical scholar, A. W. Gomme, has emphasized the fact that in fifth-century Greece the city states were always mainly dependent for waging offensive war upon the hoplite class of foot soldiers, heavily armed at much expense and relatively few in number. "Light-armed fighting, such as it was, was left to the very poor, landless men, despised and neglected." Gomme tells us further that, for all the superb qualities of the Greek soldiers at Thermopylae and Marathon, the Greeks "never regarded warfare as anything but a tragic interruption of ordinary life."

In the thought of the scholastic philosophers, as represented by Thomas Aquinas, war was legitimate only when undertaken at the order of a sovereign authority, on behalf of a just cause and with a rightful intention. On other terms war was sinful. Priests were forbidden to engage in it on any terms, because their calling was above that of the soldier. Their mission was to the ministry of the altar, where the Passion of Christ is represented sacramentally. It was unbecoming, therefore, for them to slay or shed blood; more fitting that, if necessary, they shed their own blood for Christ, so as to imitate in deed what they portrayed in their ministry.

In the eighteenth century the heroism associated with violence among the elite seemed on the point of dying out. Samuel Richardson sought to demonstrate, in *Sir Charles Grandison,* that the refusal of a duel could be more gallant than the acceptance of the challenge. In Richardson's time it might have been hoped that this attitude would extend to military service. Yet at this juncture of history, Europe was not only about to revive but was about to universalize the concept of the military hero. During the last hundred and fifty years this concept was gradually extended, in ever cheaper and more diluted forms, to many nations and to much larger armies.

How did this happen? The heroic view of military service had become more and more difficult to maintain when armies and navies were recruited mainly from the dregs of the people, as they still were in the seventeen-seventies, when Gibbon was writing his history and Saint-Germain was administering the French war office. For the previous hundred years and more the callous contempt of the common man as a social outcast (generated by the spread of routine wage work in large units and by the rise of standing armies) had served as a kind of curb on remorseless war. But this very attitude towards the lowest and most miserable classes of society contained germs of terrible social dissension throughout Europe, and, as European civilization spread, throughout the world. It encouraged artificial exclusions of many kinds, based not on moral, intellectual, aesthetic or spiritual grounds, but simply on

circumstances of birth, occupation, appearance, color, race or nationality. Such exclusions were not new in civilized history, but economic and military developments which promoted them were especially disturbing after slavery had been eliminated from Europe during the Middle Ages, and at a time when European thought manifested increasing confidence in the perfectibility of human nature, at a time when there was also in intellectual quarters, as with Rousseau, a disposition to attribute special virtues to man in a state of nature, without wealth or even schooling.

Many of the most influential writers of the eighteenth century were insisting that the exclusion of the common man from the delights of the times was a blot on an otherwise enlightened age, since all men, whatever their birth or circumstances, were by nature much alike. The views of Rousseau, Voltaire and other reformers were conducted, as lightning by rods, among the fairly numerous people who then read widely and carefully and who attended to ideas with passionate enthusiasm. An increasing number of men and women felt the spell of the new message. They began to act in ways designed to improve the status of the common man, to promote social equality. On the eve of the Revolution the change in habits of dress from silk to cotton was the result in no small measure of a desire among the more cultured and wealthy classes of society to give a visible manifestation of their sympathy, even their solidarity, with the less fortunate. Enough persons abandoned soft silky costumes for rougher clothing, to bring about an important shift in the French demand from silk to coarser fabrics of cotton and wool.

At this very time, when the desire for equality became widespread, war provided the condition to which it was easiest to admit all men on something approaching equal terms. Industrial civilization conferred upon the population generally the opportunity to participate in exploits, deemed heroic, hitherto a preserve of a privileged few.

Not long after the storming of the Bastille, in 1789, the desire to wipe the social stains from the common man took the form of making him a more willing soldier, by increasing the prestige of the military calling for privates and non-commissioned officers. The improvement called for at the time of the French Revolution in the status of the common industrial worker was soon mixed up with the improvement in the status of the common soldier, as the revolutionary governments were threatened from abroad by foreign invaders. With the increasing interdependence of industry and war, the worker and the soldier were coming to be more closely locked together than ever before. The interrelationship became compelling when, in 1792, common men actually began to fight for their own rights, the "rights of man," and for their own "liberty, equality and fraternity."

Under the influence of the great social and political thinkers of eighteenth-century France, many of the nobility were behind this new esteem for the common man. The Comte de Mirabeau and the Marquis de La Fayette, fresh from his exploits on behalf of the American Revolution, were two among many nobles who took part in the first stages of the French Revolution. They helped to overthrow Louis XVI's absolute power, though they had no desire to guillotine him and little to depose him. They sought a constitutional monarchy for France, in which the newly-summoned States General would take a part resembling that taken in England by the House of Commons. But they sought greater consideration for the common man than he had gained in England; they sought it for both the craftsmen and the landowning peasants, a class that was rapidly disappearing north of the Channel.

The more extreme French reformers, such as Danton and Robespierre, were disposed to respect the common man not so much for his potentialities as for his actual qualities, or at least for qualities they attributed to him. But the most immediate tangible result of their intercession was to put him in the army, and even to root out by force any resistance to army service by the peasants, such as was offered in the uprising of La Vendée in western France, an uprising fomented, it has been alleged, mainly by priests and disgruntled nobles.

From the eighteenth century two conceptions of the common soldier emerged to influence the conduct of war in the new world which the industrial revolution helped to create. The first was of a disciplined, mechanized animal. The second was of an inspired, godlike resister trampling here and now on the face of evil. With the decline in religious worship, and still more the loss of belief in original sin, which took from killing and bloodshed some of their stigma, evil became a monopoly of the enemy, even within the European community.

On September 20, 1792 the two concepts of the soldier were arrayed against each other in the battle of Valmy. The Prussian invaders, under the duke of Brunswick, confronted the newly-formed citizen-battalions of France in Champagne, on the threshold of the Ile de France, which the French have often defended with a special tenacity. The French concept won. It began to make much headway everywhere, even among sensitive and humanely-disposed people who shrank from battle but who were inspired by the wonderful hope for human brotherhood, on behalf of which, it could be plausibly believed, the battles were fought. Without the enthusiasm generated by the Revolution, Napoleon could hardly have been so successful during the first years of the nineteenth century in the long series of conquests which carried him and his men as far as Moscow. Even in Germany Napoleon was at first mistaken for a champion of generosity, of the dignity of the human person, and especially of

the humble common man whose welfare aroused such wide concern among the civilized men and women of an increasingly civilized age. These hopes in a man of power died for a century with the million who were lost on his campaigns during the decade of war which ended in 1815.

A French noblewoman, the Marquise de la Tour du Pin, who got on well with the Emperor, described an episode in Spain, such as was repeated in many parts of Europe. A young officer of Napoleon's invading army was miserably assassinated in the headquarters of Marshal Soult. The murderer escaped. "As reprisal the village was left to the fury of the soldiers, who made it a bloody, burning hecatomb."

Faced with their own defeats, the Prussian militarists of the generation of Kleist, the remarkable German dramatist whose sensitive poetic nature helped drive him to suicide, observed that Prussian discipline alone was not an adequate basis for conquest or even for defense. It was necessary to learn from Napoleon and from the French intellectual and cultural world which Napoleon had exploited. As a result, something of the French concept of the common man was incorporated into the German. The liberation of the common man, conceived in the international and generous spirit of the eighteenth century, gave the nationalism, which had lost some of its sting during the age of limited warfare, a new force, partly because of the more aggressive and extensive warfare of the period from 1792 to 1815. As battles were more frequent, as military campaigns were more extensive and frightful, old fears and hatreds revived; new fears and hatreds were formed.

The social problems, which the enlightened minds of the eighteenth century had sought to solve by generous gestures and political reforms, were intensified. The few rich and the many poor found no basis for unity, except in the grim and transitory bond which joined the peoples of one nation against those of others in the marching armies. It was partly the new spirit among the soldiers, generated by doctrines of the brotherhood of man, that made it feasible to keep in the field larger more effective armies, whose actual objective was the slaughter of their brothers who happened to belong to foreign nations. Slaughter of this kind proved an inadequate means of achieving universal brotherhood. A growing love of humanity, good in itself, was turned in directions which eventually divided humanity into heavily armed rivals and produced an inhumanity in the treatment of the enemy such as had largely disappeared from Western Europe after the wars of religion.

# AUTHORITY AND RESPONSIBILITY OF BUSINESS

*Edward A. Duddy*

In a time of uncertainty such as the present, there is a widespread disposition to appraise our economic situation in terms of those circumstances, past and future, which seem to bring us periodically to a serious disturbance in our economic affairs. One important reason why we fail to achieve a better ordered economic life is that we violate a primary principle of good management, namely, that authority and responsibility should go together—one implies the other. One to whom power has been given must be held responsible for its use, and one upon whom responsibility has been placed should be granted power sufficient to discharge that responsibility.

In developing this theme and applying it to the present organization of our economic life, one is struck first by a most significant contrast, namely, that between the ideal of a freely competitive, individualistic economic society, and the reality of a society of powerfully organized economic groups.

We have inherited the tradition of a laissez faire philosophy, according to which we believe that the best interests of society are served by allowing individuals to pursue their own self-interest generally unhindered by governmental controls. We adhere to a belief in individualistic competition in a free market. We place dependence on the impersonal action of the market through the price system to accomplish the degree of co-ordination of effort which is necessary to a beneficial social result. Our beliefs, our thinking and teaching, our phrase making, are pretty generally in these terms, and we have institutionalized our economic beliefs in a legal code which is directed toward the maintenance and enforcement of free market competition. So much for ideology.

Looking now, in objective fashion, at the economic reality, we observe the growth within our democratically organized society of economic power groups. We have progressed from a society of small, independently owned and operated enterprises on the Jeffersonian model, to a society of "big business," of large corporate units employ-

ing vast numbers of people and great amounts of capital and exercising great economic power. Included in this category of big business entities are not only industrial and commercial enterprises but labor unions, farmers' cooperatives, and pressure groups. Thus we have moved from a system in which economic power was diffused among many small units to a system in which power is concentrated in a relatively few large units. We have moved from an individually competitive society, and individual bargaining, to group competition and collective bargaining. We have experienced a change from a society in which the individual was relatively free to a system in which the freedom of the individual is limited. All of these changes have taken place over a considerable period of time and in spite of legal restrictions which were hostile to the growth of organized power groups.

We no longer practice what we preach. Leaders of these large business enterprises continue to repeat the precepts of an individualistic competitive theory at the very time they are departing from them. They continue to worship the form after the substance has disappeared. All question of sincerity aside, there is obvious inconsistency in invoking the principles of economic freedom while perfecting organizations which impose restraints upon their members to achieve group solidarity, and upon other groups to gain economic advantage.

This divorce of theory from practice is further manifested in the efforts of the managers of these large aggregates of economic power to maximize their advantage in the spirit of individual self-interest which characterized a small-scale economy in which such aggregates of power did not exist. Group self-interest backed by great economic power has been substituted for individual self-interest backed by little power.

Consistent in their belief that the public welfare will take care of itself if each individual business is efficiently managed to make a profit, managers of these large enterprises give little evidence of a sense of responsibility for the effects of their policies on the general public. The situation is epitomized in the following quotation from an address by the secretary of a large trade association:

> The most important thing a businessman can do is to operate his own business with skill at a profit. *It is sound national economy.* We are practically the last resort of democracy. We should demonstrate its efficiency. To do this requires the maintenance of good public relations, and nothing is more vital than to maintain good-will among those whom we serve and with whom we must deal.

Thus the major responsibility of business for public welfare is relegated to a public relations functionary whose well-known duty is to minimize possible hostile attitudes of the public which interfere with the main business of making a profit.

In a democracy all power is in the people. Democracy, being in its

nature a reaction against the tyranny of centralized power, is jealous of the growth of any rival power which might challenge its authority. Thus it is understandable why the authority of government over business has been extended to keep pace with the growth of private power groups. In the main, government has been motivated by the desire to ensure a free competitive market. It has not always been consistent in this respect, because it has, in particular instances, departed from the theory of individualistic competition to come to the aid of weaker groups, and to promote their organization on a co-operative basis. The fact remains that the power of government to intervene in the management of private business has been enormously increased, and there is no sign of a slackening of this trend.

Business managers, sincere in their belief in an economic philosophy which minimizes the power of government, resent this growing interference of government, except, of course, when their particular interest is benefited. The basis of their opposition is more than philosophic, it is on practical grounds as well. They point to the need for larger power of control—a power which certainly was not envisaged in the economic philosophy of the nineteenth century in which they profess to believe. The job they have to do is bigger than before. It cannot be done without an enlargement of the unit of organization, and greater concentration of control over material and financial resources.

The risks are greater. With increased size comes the need for larger fixed capital investment; costs are more inflexible. There is need for a maintained volume of sales with commensurate risk of loss in an unstable market.

Plans must be made well in advance of production, plans which involve billions of expenditure and millions of jobs. If there is to be some kind of order and hope of bringing these plans to fruition, there must be a corresponding degree of control with the minimum of interference from an external authority. Managers of large business can no longer trust to the impersonal and unpredictable action of the market, they must seek to control it. Competition is increasingly displaced by co-operative action in the interest of stability and security.

In asserting their right to increased power of control, private business groups are motivated only by self-interest. In this they are consistent with their inherited economic philosophy of individualism and freedom from which, in other respects, they have so far departed. But freedom of organized power groups to compete has consequences different from the competition of individual small units. A philosophy of maximizing individual gains which is defensible under small-scale operation is indefensible when business units are in a position to exact monopoly profits.

Moreover, the differences between competing power groups are more serious and irreconcilable. When units of competition are small, conflicts of interest between individual businesses tend to cancel out through the impersonal action of the market, and a realignment can be effected without great disturbance to the social order. Not so where there is a trial of strength between large, powerfully organized groups. Differences in these cases can be resolved only by lengthy negotiation and often only after serious disruptions have occurred.

The aggressiveness of large business enterprises in using powers they have appropriated in order to exercise increased control over the market, and the failure of competing power groups to reach agreement without great disturbance to the economic life of the country, have combined to give government a further extension of its powers of control. These controls have become so numerous and detailed that they seriously interfere with the ability of management to achieve the order and balance which should prevail in their industries. When jobs fail for lack of co-ordinated effort and we slide into depression, business is blamed and its failure is pointed to as a failure of the free enterprise system.

Thus on the side of government we have extraordinary power to intervene in the management of business enterprise without having responsibility for the effects of its intervention on the success of the undertaking. On the side of business there is a dual responsibility: responsibility to stockholders for efficient operation and the making of a profit, and responsibility for public welfare. Whether recognized or not, this latter responsibility rests upon all large businesses and upon these economic power groups. It is inherent in the size of the enterprise and the power it exercises over national resources. Managers of these enterprises are either unwilling or unable to discharge this dual responsibility. They universally recognize their responsibility to stockholders, but many managers, acting in the spirit of an individualistic system which they have long since outgrown, refuse to recognize any obligation for general welfare. More intelligent business leaders realize that they have a responsibility to the public in the conduct of their enterprises; but under the conditions which now prevail, they are denied the power to so organize their industries that they can effectively discharge that responsibility. On the side of government there is zeal to promote the general welfare by the enforcement of legal controls in the interest of preserving a free market, but in the process, government seriously interferes with the freedom of the individual business to organize in order to control the business risks to which it is exposed. Thus there is mutual hostility and suspicion between government and business with resulting failure to effect that degree of co-ordination of

effort throughout the economy which the general public has come to expect.

Assuming that we have a choice, what are the possible alternatives to our present system in which there exists this separation of power from responsibility in the conduct of our economic affairs? Let us first consider the alternative of returning to the tradition of a free market based on individualistic competition. This presumes a rigid enforcement of our anti-trust laws and the atomization of our business organization. There seems little point in arguing whether we should return to the ideal competitive economy to which business men so often give lip service. There is no evidence that such an economy ever existed, and one has some doubt that such an ideal could ever be achieved except in the mind of the philosopher. But objection may be taken on practical grounds even to that system of limited freedom provided by our present laws. In the first place it does not solve our problem of responsibility for the use of power. In a society organized on an individually competitive basis, power is so diffused that responsibility for any action affecting public welfare cannot be fixed. No one feels responsible because no single business has sufficient power to affect the total outcome. Reliance is placed upon the impersonal action of the market to effect a beneficial result. If something goes wrong, no one is to blame because everyone is to blame.

Furthermore, such a solution is to be distrusted because there is good reason to believe that were we to succeed in unscrambling the present organization of economic effort, the forces which have operated to perfect our present business system would again operate to reconstruct it. These forces are in part technological, in part psychological. Efficiency of operation under modern conditions demands large-scale organization and a high degree of co-ordination. The risks to which a dynamic economy exposes individuals are so great that a premium is placed upon the kind of organization which will give stability and security, even at some sacrifice of individual freedom. There is abundant evidence that increasing numbers of people are ready to give up a share of their individual freedom of action in exchange for freedom from fear.

We are, in fact, confronted by a world change which has moved in the direction of authoritarian control and a tighter discipline over economic affairs. If we are not to suffer handicap, we must depart in some degree from the ideal of a free market. Pending the arrival of a more peaceful international understanding, we must effect a closer co-ordination of economic effort in the interest of national safety. In the words of Ben Franklin, spoken on a momentous occasion: "We must all hang together or we shall, assuredly, all hang separately."

As a second alternative, we can take the view that private business,

being by definition selfishly motivated, cannot in the nature of things discharge its dual responsibility to investors and to the public. We can say that we cannot trust private business with the power needed to effect the degree of co-ordination of effort necessary for public welfare and for national safety, without endangering the authority of government itself. Therefore, government should take over business and operate these major enterprises as a necessary function of government in a socialist state.

This solution, too, is undesirable and, assuming a willingness of business managers to assume a share of responsibility for public welfare, unnecessary. The organization of large business enterprise under socialism would be no different from what it is today. The difference would be a difference in the quality of management, which would be much inferior if politically controlled. One cannot deny that we have moved in the direction of socialism and that the organizers of large-scale business enterprises, through failure to recognize their responsibility for public welfare, have helped in the process. We may, very possibly, drift into socialism, but before we do let us examine the possibilities of a third alternative.

The third alternative focuses attention upon the need by business leaders to accept a larger responsibility for public welfare in the conduct of their businesses. By the same token government must give business management sufficient freedom of action to discharge this responsibility. This is a plea for an enlargement rather than a restriction of power. Call it a new laissez-faire if you will—freedom to organize without undue interference. If we want the management of our economic affairs in competent hands, if we want an organization of effort which is commensurate with the job to be done, then we must trust management with an extraordinary grant of power and hold management accountable for its exercise.

Our more intelligent business leaders are thinking and talking and, to a degree, acting in terms of industry management, not individual business management. They need to be set free to formulate industry-wide policies and to act in concert with one another in carrying out these policies. Government, as the representative of the people, would sanction agreements affecting the public good and act as arbiter of their performance.

It may be argued that such an extension of economic power to private groups may well be dangerous not only to the public interest but to many small businesses with weak industry organization.[1] The idea of business men or labor unions or farm organizations entering into a

[1] The National Recovery Administration of the 1930's will serve as an example.

conspiracy for the general good seems about as fanciful as the ideal of a freely competitive market. What may reasonably be expected from such an organization of economic society, *in its initial phase,* is presently illustrated by our efforts to organize the agricultural industry. That industry probably represents the most difficult of all organization problems because of the large number of small producers, the great variety of their enterprises, and the political crosscurrents which bedevil attempts to achieve a policy which will be workable and fair. The problem of organizing the steel or coal industry would be simple by comparison.

The efforts of the federal government working with farmers to stabilize the nation's agriculture exhibit the best and the worst features of the organization of a free enterprise system on a co-operative basis. National policies of production and of conservation have evolved through the conference method. These policies have been put into action by the concerted effort of large groups working under voluntary agreements. The results have been beneficial to farmers and to the national economy. From the depression depths of the 1930's, farmers as a group have risen to comparative prosperity.

Now, in a period of major readjustment, faced with the need for cutbacks in production, and threatened with lower prices, the co-operative effort to maintain stability of income appears to a suffering public as nothing more than a selfish desire to continue receiving subsidies which are not justified by the needs of the producers. In a democracy, considerations of party politics may, for a time, give encouragement to group policies which are detrimental to the nation's economy. Such seems presently to be the case with congressional support for agricultural prices at ninety per cent of parity in the face of mounting surpluses of staple farm products. But as long as the game is played in the open the public will know whom to blame and inevitably pressure will be brought to force a change in an obviously unwise policy.

Selfish and harmful policies which individual businesses may get away with unnoticed, except by those whose interests are immediately affected, bring retribution from an aroused public when the attempt is made by organized groups to secure for such policies the approval of our law making bodies. Thus the best insurance against abuse of power by such groups is first to give them authority to make important decisions with respect to industry policies, and then to bring these decisions before the bar of public opinion in a process of review and sanction.

In spite of much bungling in the administration of the Agricultural Adjustment Act and related legislation, and in spite of considerable economic waste, there seems to be no disposition, after sixteen years of trial and error, to abolish agricultural controls. Neither political party

dares to write that recommendation into its platform. Rather the effort is being made to extend these controls on an international scale in recognition of the world-wide scope of the market for the products of American agriculture. Farmers are traditionally individualists but they show great capacity for co-operative organization when they see that their interests are involved. Such capacities can certainly be expected in other areas of our economic organization.

Such a departure from our traditional individualism would sanction co-operative action over wide sectors of the economy. Such co-operation would include not only the members of an industry group, but would extend to the joint action of related groups, and to joint action of business with government in a spirit of mutual aid and assistance. It is not to be disputed that co-operative action by private business groups, whether of industry, labor, or agriculture, has potentialities for evil as well as for good. Especially is this the case where rival interests agree to settle their differences by "passing the buck" to the consumer. In a period of rising prices employers may make only half-hearted resistance toward the granting of wage increases when the cost of such increases may readily be passed on to the consumer. Organized labor may not resist of the efforts of organized agriculture to freeze the prices of their products at a high level, provided they are able to obtain the support of agriculture on the ground that high wages mean good markets for farm products.

Correction of such practices comes when those who are not directly benefited by them begin to resist, and demand is curtailed. It is then that the leaders in the better organized industries call a halt. The issues are dramatized in the personalities of the leaders. It is organized steel against organized labor with the public watching every move and bringing pressure through governmental channels to force a decision which will be in the public interest. This is the democratic process working itself out through large, powerfully organized units which finally come to understand and respect each other.

As a further illustration of the demands which this kind of co-operation imposes, and in contrast to the orthodoxy of the trade association executive whose formula for a sound national economy was that of making individual business profit, one may quote from a recent statement of Clarence Francis, Chairman of the Board of the General Foods Corporation, before the National Farm Institute at Des Moines, apropos of a sound national policy for agriculture:

> The goal of American agriculture in all its parts should be the greatest possible contribution to physical health and satisfaction the world over, consistent with a balanced economy at home. . . . Therefore, I propose a continuing committee on long-range farm policy, *on the Presidential level*. We simply cannot

> afford to have our food and agricultural policy tossed about by a Congressional committee, nudged or pressured by farm organizations, labor, industry, or by anyone else. That policy concerns far more than 25 to 30 million farm residents, far more even than 150 million Americans. Today American farm policy is a factor in world peace, perhaps in the survival of civilization. It deserves to be treated as such.
>
> The nature of this problem is not one which can be solved by government alone, or by our educational system, or business, or farm organizations, or by farmers acting individually.
>
> The national welfare, the national security, and the peace of the world depend on the co-operation of men who are citizens first and representatives of special groups second, working together to define a proper balance for agriculture in this country.

What can be said for agricultural policy can be said just as easily for the policies of all major industries. Those who are entrusted with the leadership of major economic interests should not have to come in at the back door in the determination of major national economic policies, with dependence on lobbies and public relations councillors and what not. Such men should, rather, sit at the conference table with full powers and full responsibility.

Such a delegation of power to private business would carry with it a correlative responsibility for its exercise in the public interest. Management must be willing to accept such a delegation of power and to assume this new responsibility. It must subscribe to the belief that "private business is a public trust" and that efficient management calls for much more than making a business profit. Business men should stop preaching a theory of business which they have long ceased to practice; government should stop trying to enforce a code which has been outmoded by the course of events. Either government and business learn to trust and respect each other or we shall drift into disaster. That disaster may take the form of a progressive undermining of the efficiency of management through a multiplication of bureaucratic controls; or it may take the form of the socialistic state which spells the end of our private enterprise system.

# THE EXPERIMENT

## Its Nature and Its Limits

*C. F. von Weizsäcker*

## I

### THE MEETING OF SUBJECT AND OBJECT IN THE EXPERIMENT

When Galileo experimented with balls of a definite weight on an inclined plane, when Torricelli caused the air to sustain a weight which he had calculated beforehand to be equal to that of a definite column of water, or when Stahl, at a later period, converted metals into lime, and reconverted lime into metal, by the addition and subtraction of certain elements; a light broke upon all natural philosophers. They learned that reason only perceives that which it produces after its own design; that it must not be content to follow, as it were, in the leading-strings of nature, but must proceed in advance with principles of judgment according to unvarying laws, and compel nature to reply to its questions. For accidental observations, made according to no preconceived plan, cannot be united under a necessary law. But it is this that reason seeks for and requires. It is only the principles of reason which can give to concordant phenomena the validity of laws, and it is only when experiment is directed by these rational principles, that it can have any real utility. Reason must approach nature with the view, indeed, of receiving information from it, not, however, in the character of a pupil, who listens to all that his master chooses to tell him, but in that of a judge, who compels the witnesses to reply to those questions which he himself thinks fit to propose. To this single idea must the revolution be ascribed, by which, after groping in the dark for so many centuries, natural science was at length conducted into the path of certain progress.

According to these true words of Kant, the experiment is a drama between two partners, "Reason" and "Nature." Instead of "Reason," we should prefer today to say "Man." For, on the one hand, our science does not know a reason other than the human one, and superhuman reason would hardly need to experiment; on the other hand mere reason is not adequate for experimentation, since man needs for it also his hands and his eyes. All this Kant knew, but for us the emphasis lies less exclusively on the rational component.

Accordingly, the experiment would be a give-and-take between man and nature, but not every give-and-take between these two partners is an experiment. The roles of the two partners in this particular process are more clearly defined by the grammatical concepts of subject and object. An experiment exists only where knowledge is sought for. "To know" is a transitive verb: someone knows something. "Someone," the subject, is some man; "something," the object, is some thing, process, condition in nature. In the following, I shall use the terms "subject" and "object" primarily in relation to the knowledge conveyed by the experiment.

Now of what must the two partners be capable, what must they do or undergo for an experiment to take place? It was just said that man uses, besides reason, his hands and his eyes for the experiment. Only the triad of thinking, acting and perceiving makes the experiment possible. What conditions must the two partners meet in order that the triad of processes can be active between them?

We cast a first brief glance in the direction of the subject. In our traditional epistemology the role of perception has been the most obvious. The experiment is a kind of sensuous experience, but receptive sensibility does not exhaust the experience gained in the experiment. Indeed, the comparison of naive perception with the experiment has taught us to see how much activity is involved in seemingly pure perception. It is not even sufficient if, in addition to perception, one of the two active dispositions is added to perception: only thinking or only acting. In the first case, the result is philosophy, the second, handicraft. It is fitting that Galileo stands at the beginning of Kant's exposition, because he is probably the first to embody that unity which is no longer either philosophy or handicraft because it encompasses both: each of his manipulations is guided by thought, each of his thoughts by experimental evidence.

## II

### THE OBJECT IN PHYSICS

We turn now to the object, and confine ourselves at first to the physical sciences. It is not sufficient that man is able and willing to perceive, think and act. An experiment can occur only because and in so far as nature itself is capable of being perceived, thought about and acted upon. We do not know, *a priori,* to what extent nature has these qualities. Only experimental science teaches us to know the conditions under which the experiment is possible, inasmuch as these conditions lie on the side of the object. Like every single experiment, the undertaking of experimental science as such requires the courage to undertake some

thing the outcome of which is uncertain. What has the development of science up to date taught us about the conditions which make science itself possible?

Again, as on the side of the subject, the most obvious prerequisite for the experiment seems to be perceptibility of natural phenomena: again the isolated consideration of the latter is deceiving. Certainly, experimental science would be impossible if nothing could be perceived, but it would be unnecessary if everything could be perceived. The purpose of the experiment is the exploration of that which has not been perceived hitherto; either because it reveals a process which has not been revealed before or because it reveals effects of a process which continues to remain unrevealed. In view of this, Mach's sensualist concept of reality is, to put it mildly, an inexpedient renaming. *Esse est percipi* is a phrase which is not in conformity with the spirit of experimental science; first, it should not read "to be perceived," and secondly, allowance should be made for "indirect" perception, that is, perception of the effects of something which cannot itself be perceived. Even in the cloud chamber I do not see atoms, but I see drops of water and deduce the existence of atoms. The building and expansion of the cloud chamber contain the element of action, the deducing of the atoms, the element of thinking. Perhaps one may say: immediate sensuous perceptibility of the thing is a sufficient but not a necessary condition of our belief in its reality; immediate sensuous perceptibility of some object connected with a thing is a necessary but not adequate condition for the ability of experimental science to make a statement about this thing.

Thought is a bridge from the perceptible to the nonperceptible part of the real. It connects the perceptions through the concept into a system. It plans the experimental operation and interprets the result. It is the judge who poses the question to the witness, nature. But the inquiry is possible only because and inasmuch as the witness understands the language of the judge. True, as Kant has told us, "The applicability of the categories of our thought to nature is the prerequisite for the possibility of all experience": only inasmuch as the principle of causality is valid can I understand a phenomenon as the result of a cause which is not apparent and thus deduce the cause; only inasmuch as the laws of nature are valid is there constancy of phenomena, hence meaningful definitions of things, hence scientific communication between men about nature. But we do not know, *a priori* and generally, that nature will submit to thought. We try to apply to every new realm of reality the conceptual patterns which appear to us plausible or self-evident, and we explore experimentally how far we can get with this procedure. The fact that certain laws are prerequisites for the possibil-

ity of a certain kind of science does not compel nature to obey these laws; where it does not obey them, we have to give up this kind of science. Thus we apply Euclidean geometry, the law of causality, the category of substance successfully to our measuring instruments; but it is exactly with these instruments that we discover phenomena for which those same principles are no longer adequate. That this occurs to us with objects measuring $10^{-8}$ cm. or $10^{8}$ light years should perhaps surprise us less than the fact that we still find abstract mathematical, hence thinkable, systems of scientific laws to which such objects are obedient.

The thinking of our science proves itself only in action, in the successful experiment. To experiment means to exert power upon nature. The possession of power is then the ultimate proof of the correctness of scientific thought. The limits of the applicability of certain concepts or laws appear to us only in the form of the impracticability of certain experiments—for instance, the determination of an absolute speed—or in the form of the mutual incompatibility between two sorts of experiments like the measuring of position and impulse in an electron. Concepts like relativity, complementarity, and invariance under transformation groups take account, even in abstract theory, of this operative character of our science. Exponents of an older ideal of science are often surprised at the seeming naivete with which we "confuse" the nondemonstrability of a situation with its non-existence. In truth, our science has merely adapted its conceptual form by one more degree to the situation which has existed since Galileo: that its ultimate criterion of truth is the experiment. We only have to inquire rigorously whether an experiment is impracticable for us because of inadequate technical means or ideas or for every and any experimenter because it conflicts with a positive law of nature.

But although the operative concepts within a given experimental science will be consistent, they reveal nevertheless that our intellectual point of view is different from that of the founders of that science. For them, nature was an existing reality which man had only to learn to know.

The factual situation which Kant's judge wants to discover exists "in itself" prior to the inquiry. The scientific law indicates what happens in nature objectively without our intervention; it is a law of that which is. For us, it is a law of that which is possible. For our concept of classical physics, it is important that the mathematical form of its scientific laws, the differential equation, yields an unequivocal solution only when initial conditions are given; that this scientific law has the form of the conditional statement: "If situation A is realized, condition B occurs as its result." In those realms of nature which cannot be observed

immediately, the scientific law becomes more and more only an indication in regard to the possibility and the result of experiments; a law concerning our ability to produce phenomena. This law, too, is objective, because, with certain means, only certain phenomena can be produced. But what has been objectively determined here is no longer something which is, but a give-and-take between acting and perceiving. We may speak of objects only in so far as they are possible objects of a subject. This sentence, too, is almost a truism, since we define knowledge as the knowledge of an object by a subject. But we could not anticipate that the form of our statements about objects would, in terms of pure logic, no longer permit us to pass over in silence the fact that in each case they are being pronounced by a subject. The metaphysical hope of classical physicists to gain through science a solid hold on being itself collapses. Contemporary physics compels the physicist to look upon himself as a subject.

## III

### THE HISTORICAL PLACE OF THE SUBJECT

We return to the side of the subject. We have summarily designated the subjective conditions of the possibility of the experiment as the human abilities to perceive, to think and to act. By a closer inspection of these abilities, we shall perhaps interpret and change our concept of the subject in the same way as we have that of the object—through the contemplation of their objective correlatives. Thus, by a generally anthropological method of inquiry, one might explore the three abilities, the level of conceptualization as defined by their distinction in our thought, and the way in which they are *de facto* interconnected. Here, however, I should like to confine myself to an historical observation.

We probably face the modern polarity of subject and object for the first time in Descartes' antithesis between *res cogitans* and *res extensa*. His line of reasoning is well known. Even if I doubt everything, I know nevertheless that I doubt, hence that I think, hence also that I am. *Cogito ergo sum*. So what is most certain in me, the *res cogitans*, is the necessary subject of every cognition. What enabled Descartes to return to faith in the "external world" is a proof of the existence of God. If the being of God can be deduced from the concept of God, and if I may be convinced that God does not deceive me with the ideas which He has planted in me, and with the ideas which He has granted me, then nature is real. Now Descartes conceived of nature as purely spatial, as *res extensa*, and subjected it to the way of thinking of classi-

cal mechanics, then beginning. Thus, nature is, in fact, introduced a the object which can be known to the subject and which exists in itself

This construction, like the head of Janus, turns one face toward th Christian thought of the Middle Ages and the other toward the scien tific thought of the modern era. That Descartes' heart was on the sid of the modern era is almost certain. In his triangle—I, God, World— God is only the mediator of the transition from "I" to "World." A late age felt Descartes' God to be a kind of auxiliary quantity introduce to facilitate his calculations and removed from the final equations; an the attempt was made to show that the calculation could be accom plished without the auxiliary quantity. While for centuries philosoph moved within the problems posed by the Cartesian triangle, scienc chose with determination the "calculation without the auxiliary quan tity," and soon based its self-confidence on the results of this method Classical science omitted, besides God, the subjective pole, the "I." A we today again take seriously the duality of subject and object, we fin ourselves approaching the place of Descartes; and as this process take place, we cannot avoid looking in the same direction as that face of hi system which was turned toward the past. We shall understand th modern, Cartesian subject only against the background of Christianity

The Cartesian *res cogitans* is an impoverishing schematization o what Christianity called the soul. The rationalism of Descartes is wel known. It may be explained through the triad of human abilities whic the experiment requires. What Descartes allows as perception is di passionate statement of fact. His thinking is "clear and distinct recog nition." His relation to action is of particular significance. His think ing is active and not receptive; hence, his concern is the method of th right use of reason. But physical and effective action has for him n cognitive value; hence, it is difficult for the philosophy which stem from him to do justice to the experiment. Even for Kant, it is spon taneity which places reason above sense. The Cartesian subject is sol tary. Its natural ties with reality are severed; love and hatred, pleasur pain and guilt are theoretically inconsequential emotions. Only an "I of this kind can conceive the idea that his own thinking is the onl immediate certainty. No wonder that the most difficult problem of thi philosophy was the interaction of soul and body. This impoverishmen would be unimportant if it were the peculiarity of a single philosophe but it is historically a typical process, which repeats itself in many var ants and is probably unanswerable. The difficulties which followed ar therefore legitimate problems of the modern era.

It has been said that the solitude of the Cartesian "I" is the heritag of the solitude of the Christian, who is a pilgrim in this world. Tha may be; the *cogito ergo sum,* too, may be found in Augustine. Bu

Christian solitude is suffering; and, at least in the communion of saints, it is overcome. Cartesian solitude is serene; it is part of the sovereignty of the perceiving ego. The "world" in which the Christian is solitary is the totality of his fellow man. But love is always the bridge to his brother. The "world" of the modern scientist is material nature. The Christian is a subject among subjects, the scientist is a subject confronting objects. Therefor, with Descartes, the role of God becomes purely formal. For the Christian, God is indeed the only safe bridge to his fellow man and eventually to the animal and the thing. For God is love. He is not blindly determined, instinctive love, but free-seeing love; He is that understanding which is love. If one omits love from loving knowledge, the Christian God becomes Cartesian, the Christian soul becomes the subject of modern science.

We return to the question of the subjective prerequisites of the experiment. What distinguished both the true Christian and the modern scientist from all people committed to instinct or myth is that the former are free in regard to all earthly things. But freedom is a prerequisite of the experiment. Only where my action and thought are not determined by circumstances, impulses or customs but by my own free choice can I make experiments. I do not want to explore here the question of why even mature and late antiquity, which had severed so many ties, experimented little. But why were there no experiments in the Christian world until the end of the Middle Ages? This can hardly have been due to the fact that Christian history was, in fact, for the greater part a history not of freedom but of the authority of word and tradition, community and the higher powers. After all, Christianity knows also the inner freedom against the church even to the point of martyrdom. I think that the true answer to our question is the transition from loving to purely factual knowledge. Can we experiment where we love? For the Christian, the important thing is his fellow man; and he will hardly feel entitled, and certainly not urged to experiment with him. In the voluntary self-limitation of love, the conflict of force and freedom is solved. Free from all voluntary or involuntary restraint, only modern man experiments.

But don't we do an injustice to the scientist if we deny him love of the nature he explores? We do and we don't; here the multitude of meanings of the words in our vocabulary cannot deceive us, as our word, "love," encompasses in a bewildering and profound manner the realms of sex, of Eros and of Agape. It also does not distinguish between the relation of "I" and "Thou" and the ties of a man to a thing. Who may deny to the scientist love for his object, love of truth, love of beauty? That the brain of a leech, the motion of the earth, the harmony of organic forms or of mathematical relations can distract him

from all the rest of life, that is one way of love. But it is not the love of one person for another, of the "I" for the "Thou." It is a love which, in its matter-of-factness, is capable of the highest degree of cruelty. It is the love of one who is lonely, which cannot be reciprocated by its object.

# IV

## THE HUMANITIES AND BIOLOGY

We have considered the mutual conditions of the meeting between the subject and the object in the experiment. We must now inquire into the limits of the experimental method. There are objections to this method within modern science, and there are objections to modern science as such because it originates in this method. Let us begin by considering the first objections.

The great fields of knowledge, biology and the humanities, have experienced an invasion by that mode of thought which they have designated as mechanical, physical, scientific. In varying degrees, they have on the one hand been enriched by it and on the other have tried to resist its penetration. As a whole, scientific thinking has been more successful in biology than in the humanities. Hence, we shall perhaps grasp more clearly the position of outright opposition in the humanities, and the problems raised more clearly in biology.

The objection raised by the humanities against scientific methods I may briefly express by saying that natural science does not know the "Thou." That is, the meaning of the postulate that intellectual phenomena should not be explained causally but should be understood. If, as a philologist, I try to understand the meaning an author puts into a text; or, as a historian, to understand the intention of an acting man, I enter as an "I" into discourse with a "Thou." This kind of meeting with its object, physics does not know, because it does not encounter its object as a subject. This personal understanding is a mode of experience which is accessible to us in regard to our fellow man; but not in regard to the stone, the star and the atom.

A second distinction has to be added which, however, appears to me less profound. Man is a historical being: a large part of the humanities is historical science. By the term, "historicity," we mean, first, the irreversibility of the chronological process, the uniqueness of destiny, the singularity of each situation. The term implies, secondly, the knowledge that this is so; a life conscious of the uniqueness of its own destiny. If we call the first aspect of historicity, "factual," the second, "conscious," then it is clear that nature is not consciously historical. It is however, often not clearly realized that nature is factually as historical

as man. The second law of thermodynamics and the irreversible development of phenomena, in the organic as well as the inorganic realm, show it. The time-scales of physical "destinies" are longer, the limits within which we can find an approximately repeatable happening are wider, but this difference is only quantitative.

Must we conclude from this that it is altogether impossible to apply the scientific method to the science of man? The experiment is connected with the belief in law, since I do not experiment for the sake of the single case but for the typical event. I experiment in order to be able to predict. Hence, factual historicity sets a limit to the experimental method. I can change nothing of what has passed, and the relevancy of the present experiment for past and future remains problematical. But the position of natural science is no different; not without reason is it forced to name for each law its realm of validity. One cannot deny that the economic necessities of man's daily life or certain psychological processes are likewise realms of validity for certain laws. Therefore, in economics as well as psychology, though within narrower limits, experimentation is scientifically meaningful. But the fact that science does not know the "Thou" leads us to an entirely different question: not whether one *can* experiment with man, but whether one wants to or may experiment with him. What do I do to my fellow man in treating him in my thoughts or actions as a mere object? Everything that has rightly been advanced against the application of natural science to man seems to be concentrated in this question. For, as far as I can see, the personality of my fellow man does not, in pure theory, pose limits to the application of the principle of causality to him, to the carrying out of experiments on him. He who refuses to address his fellow man as "Thou" deprives himself of the decisive experience about him; but no impossibility prevents my gaining this experience and subsequently integrating it, exactly like the experience gained from purely descriptive means, into a pattern of causal processes, indeed from experimenting in this field as in any other. We all know the moments of introspection in which we realize that we, who believe we act freely, have followed a social convention, an economic expediency, an unconscious urge, an illusion; moments in which we become for ourselves the object of causal knowledge. We all know the temptation, in the borderland between hatred, love and indifference in which modern man moves, to experiment cynically with the most human experiences. Is there any one of us who has not succumbed to this temptation? This is precisely the experience of our time, that the "Thou" is a value but a value almost without protection.

This is the place to speak of the biological and medical sciences. For, as a result of the state of science today, the thought of systematic ex-

periments on man within the realm of the soul is not yet as familiar to us as within that of the body. We do not have to think necessarily of extreme cases which it is easy to condemn. Every first test of a new medicine, of a new surgical technique, in fact every gathering of personal experience by a young doctor contains elements of the experiment. And contemporary biology is based on the experiment on the living creature from microscopic examination of tissue segments to "vivisection." What have we to hope, what to fear, from this kind of science?

The trend to which we owe the extraordinary progress of biology and medicine up to the present day expects everything from the experiment and from causal thinking. Compared with the objects of physics living creatures are more complicated and more obviously historical but for natural science this means no more than a technical difficulty which has resulted in a development of biology which has been slower than that of physics and is even today much further removed from a systematic form. Because of the historical factor, which we call accident, we shall probably never be able to understand the possibility, let alone the necessity, of roses or elephants in the same way in which we understand even today the necessity of acoustic waves or rock salt crystals. Likewise, it may be that we shall never be able to produce a living organism experimentally, because it is possible that among the necessary requirements for its generation is the natural selection of millions of years. But these are not essential limits to the scientific mode of thinking; they are technical limits of certain procedures which can be satisfactorily explained within that mode of thinking. No one will deny to astronomy its scientific character because we cannot experiment with stars; it is sufficient that in it we do not have to use patterns of thought essentially different from those used in the experimentally accessible realm.

In biology, too, this way of thinking has again and again awakened opposition. It seems to me that what is legitimate in this opposition can again be expressed in the sentence, "The 'Thou' has been forgotten." This means, theoretically, that the realm of experience has not been fully exploited. To utilize it without anthropomorphism, for instance in animal psychology, demands indeed a very high degree of methodological discipline. The unsolved question of principle which enters here concerns the connection between the "intelligible" and the "explicable" manifestations of life—the connection by means of which the body houses, or is, the soul, and by which the soul manifests itself in the body or is the body. But it seems to me an error if the vitalistic attempt, in a narrower or wider sense, is being made to find phenomena which can be verified physically, but which are not essentially to be

explained in terms of physics. The organism is as little protected theoretically as practically against the experiment; it has to endure it. What the physicist can observe he will, in all likelihood, eventually be able to explain in his own terms. True, Bohr has weighed the possibility that the life process might remain inexplicable in terms of physics and that nevertheless the validity of every physical law may be demonstrated by experimental means in the organism. Too severe an experimental invasion kills the organism, and so we must choose whether we want to leave life intact or whether we want to observe the physical process. But in physics, too, we can explain many things despite the fact that we destroy them by excessive interference with them in the experiment. The X-ray ionizes the atom while revealing to us its structure. Consequently, Bohr's thought indicates a conceivable but surely not a necessary limit to the theoretical intelligibility of the object, "life," in terms of physics. But his thought may also remind us, on the other hand, that the living thing is also subject, subject like myself who is part of life. "In order to explore life, one has to take part in life," (Viktor von Weizsäcker). If I gain my knowledge at the price of killing, if the way in which I participate in life is murder, the knowledge gained may be pertinent but is it a blessing?

## V

### FUNDAMENTAL QUESTIONS

The experiment is an exercise of power in the service of knowledge. It makes it possible, conversely, to apply knowledge in the service of power. Its benefits and dangers are the benefits and dangers of power. Power is not only a concern of politics. Politics only reveals for all what has already existed in all. To experimental science we owe the modern way of life; from the railroad, which made the world small, to hygiene, which multiplied the population, to the questionnaire, which tries to keep in order the large number of people in a small world. We have to accept into the bargain the childhood diseases of procedure, changes of living habits. But are we permitted also to accept the connection of this procedure with killing for the sake of knowledge and knowledge for the sake of killing? Are these phenomena necessary evils, or instances of degeneration which are avoidable, or proofs of a flaw in our approach which we can escape, if at all, only by complete reversal?

If one is attentive, one can rediscover those questions today in every branch of science. One will also find that the scientists themselves are helpless in the face of them. This helplessness is perhaps least serious where it is admitted. I cannot attempt to answer these questions. I can

only show, with the help of a personal experience, how complicated they are.

Many years ago, a good friend of mine who works in a biological institute led me through his rooms and showed me, among other things, a large colony of mice which had an inherited disposition to cancer, of which all of them eventually died. In his white laboratory coat, with the devotion of a scientist to his cause, he pointed out to me in the scrupulously clean room the accumulated sum of willfully produced, defenseless suffering. Later, in a circle of collaborators of that institute, I pointed out that contradiction; I encountered astonishment and even doubt as to the seriousness of my question. How can one want science and yet take exception to its means? I must admit that, without explicitly planning it and, incidentally, without any weakening of my friendly relations with these colleagues, I have never again entered that institute. That was merely evasion. Things won't change because one individual fails to face them. But what should one alter?

During those conversations, I was told, rightly, that in my own institute atoms are treated exactly the same way as mice are in theirs. The objection that mice have feeling, while atoms hardly do, was insufficient for me. The chain of beings which connects the atom with man is continuous. Where is the dividing line? Is not the attitude more important than the object? What Goethe missed in Newton's attitude toward light was reverence; and I knew how easily power over atoms could be converted into power over man.

I was reminded, almost convincingly, that such experiments serve medical purposes. Mice suffer so that man may be saved from suffering. But does one realize how terrible this logic is? Could one distinguish it with a clear conscience from the logic of those who distinguish in this way among men, and who persuade themselves that they may cause suffering to certain human beings in order to save other human beings from suffering? Is vicarious suffering possible on any but a voluntary basis? Perhaps so, but he who acknowledges this opinion must be aware of what he is doing.

I will not attempt to answer any of these questions. What matters today are not clear distinctions which soothe our conscience and allow us to continue working as before, with the necessary respect for the designated limits. What does matter is that the scientist should understand that even in the most insignificant of his actions he shares, like every other man, the responsibility for the whole. He must understand what are the small causes for the great effects from which we suffer. As long as it is not a matter of course for the scientist to consider in his experiment the human element with the same attention as the neatness

of his technical execution, I cannot look to science for salvation. What matters is a change of attitude.

I want to add explicitly, that as I see it, there is also no generally valid Christian answer to our questions. The Christian is free to do everything which he can do in love. Perhaps we have to join in executing the separation of matter-of-factness and love, but we must also know the demons which this separation unchains in order to become aware of this freedom. The Christian cosmos of the Middle Ages, that fragile order which, under the image of a God of love, was stamped on a savage world, was a magnificent naivete which we have outgrown. The modern era, the age of the experiment, has experienced its freedom in the emancipation from that image. And this age itself is like a great experiment which cannot be interrupted midway. Perhaps its consequences will teach us some time that what matters is not loveless freedom, nor recognition of or reverence for love, but only love itself.

# ARTISTS AND SAINTS

## In Memoriam: C. F. Ramuz

*Etienne Gilson*

Among the many writings of C. F. Ramuz, one that is less often read is his *Journal;* yet it is well worth reading. Those among us who have enjoyed his novels, where men, beasts, things and even the most commonplace events of everyday life are suffused with a soft spiritual light, would also take pleasure in discovering there many secrets of his art. They might even learn from these confessions of an artist one of the most important secrets of all true art.

Eminently apt at psychological observations, Ramuz very early in life submitted himself to a careful and continuous scrutiny. He always knew he would some day be a writer, that is an artist; but he soon began to wonder at the strange and almost abnormal nature of such a calling. A future clergyman first studies theology, then he passes some examinations and here at last he is with some sort of regular job and a fixed salary. Not so with the writer. Nobody wants him, at least until he is successful; but how could he achieve success if he cannot live long enough to try? Such reflections are not exceptional even in a young man of eighteen, but there is something unusual in the conclusion which Ramuz gave them a year later, on April 7, 1897: "I see every day more clearly what would be my vocation, if it were a vocation to be freely chosen, like that of a lawyer or of a physician. I *must* become a writer."

Nothing could be clearer. What is usually called a vocation really indicates little more than a preference, and even in the most deliberate cases one or two other choices could have been made. Besides, such choices do not always express the innermost aspiration of a certain personality. As often as not it takes into account objective circumstances, such as chance, opportunity, or the job of the father, which have nothing to do with the personal motives required for a true vocation. Not so with Ramuz. He has no other choice. He "must" become

a writer; and although he still hesitates to enter a way bristling with practical difficulties, he knows at least that this is the only way where, in his own words, he will find "happiness in the certitude of an answered calling and of a fulfilled task."

It would be more true to say, negatively, that because this one could not be successfully resisted, it was indeed a true vocation. Even when chosen for genuinely personal motives, law and medicine are mainly professions in which a man can make what is commonly called a career. It is very seldom felt an imperative duty for one to become a surgeon or a lawyer, and one would seldom think that any other choice would mean the complete failure of one's whole life. The only other known case of a true calling is that of a religious vocation. He who hears it seems to obey an imperative order. He does not feel like choosing, but rather like being chosen. In fact, such is the primitive meaning of the word "cleric," which signifies a man personally singled out and set apart by God to be His own servant. Of course, since man is free, he can always say No; but such a refusal is also for him a self-betrayal, because no one can decline to fulfill his highest duty without at the same time abdicating his highest dignity. Nothing else will do for him whose true vocation it is to be a priest. He cannot see himself in any other way of life. Nor, for that matter, can the true artist. A friend was calling on the painter, Bonnard, and found him at work. "So you are painting," the friend said; to which Bonnard modestly replied, "Yes, I am. What else could I do?" What can Michelangelo do, except paint walls and carve stones? What is Dante good for, if not to write? We cannot imagine the great artist doing anything else without being thoroughly wasted. Strictly speaking, outside of his art, he is good for nothing.

This is precisely why we often find the artist wondering at his life. His lot is a strange one. He knows that he must do what he does; but why he must, he knows not. For others, there is sense in having any job precisely because it is a job. A man usually works for a living, and the more he works, the more comfortably he lives. Artists find themselves in an entirely different situation. Not that they do not work with the hope of making a living, for if they do not live at all, they shall not live for art; but while other men live by selling to society what it likes, artists have to live by making society want what they themselves like. Pseudo-artists are plentiful and their trade is not necessarily a dishonourable one. Since most readers exhibit a marked taste for bad literature, there should be writers to cater to such a public: but those who sell to the public what they want are professionals like others. There is no radical difference between turning out bad plays, cheap novels or any number of bottles of whisky. All these serve about

the same purpose, which is to help men forget life at such times as they prefer to forget it.

True artists are different. Each of them needs to sell his own art, but he wants it to be such as it ought to be and the public to buy it such as it is. He does not make things in order to please us, but in order to please himself, and then he expects them to please us too. After Degas had completed a portrait, the customer diffidently expressed the fear that it did not resemble him very much. "Sorry," Degas answered, "but it is up to you to resemble it."

In the career of a great artist, there usually comes a time when he can afford such jokes, but not at the beginning. What worries him then is not just to know if there will be somebody to read what he writes or to listen to his music. The main problem is for him to know if what he creates is really worth reading or listening to. Naturally he thinks so, but he is not sure. He does not want success only or even primarily to make a living, but as an objective confirmation of his own belief in the value of his art. His first success, however, is for him the time of greatest peril. After creating himself a public, will he now cater to the public he has made? By selling art to the new taste he has created, he would become a mere craftsman and cease to be an artist. In fact, the beginning of this strange career never comes to an end. So long as he remains creative, an artist has no public, save only for what he has already done and in which he no longer feels personally interested. Baudelaire, Van Gogh, Cézanne, Gauguin all died without having found their public. Had they found it, they would have been pleased, but they also would have remembered that success does not prove anything in art either for or against. The truly creative artist never has any public, because just as he is ahead of his last work, he is way ahead of his next public.

Why then such a life? There is no Why. When they look at other men, artists are fully aware of the fact that, seen from without, their own lives do not make sense. They may even realize that there is something funny in a man urgently claiming public recognition for something which he himself likes but, which, so far, nobody else wants. Yet on second thought, he thinks that all the rest are funny, precisely because, unable to know what is good, they live only by conventions. Their acts, their judgments, their tastes are justified by the way somebody else acts, judges or feels. Nothing comes to them from within which makes them unbearable to the artist. "I want to live away from them." Ramuz writes on June 24, 1897, "The futility of all their acts would too brutally clash with the gravity of the forces which I have to obey, for these have got a scope and they drive toward it with unswerving constancy." To philistines, artists look somewhat ridiculous

but to artists, philistines are unbearable bores. Still worse, philistines are very dangerous for an artist, for he could not live long in their company without becoming one of them and thus losing his own art.

All this closely resembles another kind of life, the religious life. When the son of a banker or an industrialist tells his father that he is going to be an artist, he is likely to meet the same degree of enthusiasm as if he were announcing his decision to become a monk—not only the same degree but the same sort. In both cases he will be reminded how much more sensible it would be for him to succeed his father in the family business. If he does not want to do this, could he not single out some other work, provided only that it be a regular profession? In point of fact, any other would be just a profession. Priests and artists are the only ones to sacrifice everything—security, comfort, wealth, even the normal affections of family life—in order to serve their unreasonably exacting ideals. When all arguments have been used to dissuade them from their project, and used in vain, there remains a final hope—surely they are too young to make such a momentous decision. Within four or five years this boy will have learned better to know both himself and what should normally be expected from life. Then, if he still feels that way, it will be for him the time to become a priest. Or if he wants to be a writer, why not take up another job pending such time as, having tried himself, he will be sure to achieve success as a writer? But no! The future priest knows that God wants him at once and that He wants him whole, just as the future artist rightly feels that no man can be an artist from eight to twelve in the morning and a business man from two to six in the afternoon. This would not be too good for business, but it would be decidedly bad for art. Thus, after trying to teach for a living, did young Ramuz realize that he was rapidly losing his creative power simply by not using it. Thus also did Gauguin, married, a father, and provided with a steady job, give up everything as soon as he clearly saw that he had been born to paint. Gauguin was to die in utmost poverty, leaving behind him masterpieces which nobody would buy at any price so long as he was alive and which now do credit to all the great art galleries of the world.

Some artists at least are fully conscious of this quasi-religious character of their calling. In Ramuz's *Journal,* on April 18, 1915, we read the following entry: "The artist and the saint: the same man. Self-sacrifice; renouncing the world; accepting abuses and privations; state of grace, the disciples, the rule. . . . Parallelism of these two mysticisms. To be in God. Esthetic truth, so to speak, of the Gospel." Everything is here in a nutshell, but the remarkable thing about it is that, quite independently from Ramuz other artists have said just about the same things.

Oscar Wilde relates, in *De Profundis,* that he remembers saying once

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to André Gide, as they sat together in some Paris café, that while he had little use for metaphysics and absolutely none for morality, he saw nothing in what Plato or Christ had said "that could not be transferred immediately into the sphere of art and there find its complete fulfillment." This is probably what Gide himself was later to sum up, consciously or not, in the terse sentence, *Numquid et tu?*: "I wonder that nobody has ever tried to bring out the esthetic truth of the Gospel." This is very bad theology indeed; no more than Ramuz did Gide mean anything blasphemous when he was writing such things. It is to art, not to religion, that we should turn in order to grasp their meaning correctly.

Today "religion of art" is too threadbare a formula still to be a dangerous one. Art is radically distinct from religion, but it is true that the artist's attitude toward art closely resembles that of the worshiper toward God. More exactly, it resembles that of a priest. "I do not think I am worthy of these high functions," Ramuz writes on October 10, 1902; "I see there almost a sacerdoce." And indeed the true greatness of an artist's life lies in the complete surrender of the whole man to the divinity he has chosen to serve. In both cases he needs grace, and just as it is freely given, grace can be freely withdrawn. What the saints call "spiritual dryness" is far from being unknown to artists, the only difference being that, instead of complaining about the absence of grace, they say that "inspiration is lacking." "There are moments," Ramuz writes, "when thought is not there and the pen falls from one's fingers. I vainly strive to set myself to work, to collect my ideas, to lay down, black on white, what I think I have in my brain." There is no use in trying while inspiration is lacking; nothing worthwhile can be done. In such cases artists sadly remember the happy hours when everything was so easy to them that their pen seemed, so to speak, to run of its own accord, and when all that it wrote was good. Now the only known remedy for spiritual dryness in spiritual life is prayer, and what could more closely resemble the Deity, for an artist, than the unknown source of this elusive gift, without which he can do nothing and which he is unable to master? No wonder then that Ramuz writes: "I am capable of but little, but that I might achieve at least what little I am capable of! Such is my everyday prayer. I implore the Unknown. My will is powerless; there is something stronger than me, which escapes me and which is capable of everything. It is *that* which I invoke; it is to this god within me that I apply." Whether he may call it "that" or the "unknown," or any other name, the artist himself knows full well that he prays to it as to some sort of god.

Let us now consider no longer these men themselves but the world in which they live. It is indeed a very remarkable world, where each and

every single being both is that which it is and signifies something else. Such was obviously the case with the great spiritual writers of the Middle Ages. They did not look at the mystical meaning of things as something superadded to what things themselves were, nor as a perfection freely added to their nature. Symbolism was their very essence and nature, as if *to be* were for them the same thing as *to signify*. There is, such men would say, a twofold revelation, that of the Bible and that of the World, which is a book too, so much so that it might aptly be called the "Book of Creatures." Just as each and every word in the Bible is there to convey a certain meaning, so also each and every being that is to be found in the world has been put there to call our attention to the hidden reality which it signifies. Thus did Saint Bonaventure, a true disciple of Saint Francis of Assisi, see the Blessed Trinity shine in the humblest of creatures. Thus was Pascal later to write: "All things hide some mystery; all things are as many veils which hide God."

The kind of world in which artists live is not wholly unlike that of the saints. Hugo, who would not have liked Claudel very much, and Claudel, who heartily dislikes Hugo, both agree that the poet is a sort of high priest who reveals to the world its own meaning through the magic of poetry. In the case of Claudel, this secret meaning happens to be a religious one that is exactly the same as the one ascribed to it by the saint. But even writers such as Ramuz hardly belong to any definite religion, and see the world of actually given beings as an image of the world of art which they are invited to create. In this view, every being is much less what it seems to be according to its external appearance, than what it aims to become through the creative power of the art. Instead of saying, with Pascal, that all things are as many veils which hide God, it should then be said that each thing is a veil which hides its own beauty. The artist alone sees through the veil, and he alone removes it through turning each object into the thing of beauty which it clumsily tries to be. In other words, the proper function of art is to actualize the virtual beauty of the world.

If this be true, artists spontaneously see things as possible works of art. Like Alphonse Daudet thinking at the death bed of his own father of the wonderful chapter it would make, they go at once, beyond given reality, to what can be said, written or made in order to reveal the latent beauty. Now this is precisely what is commonly called the "poetic" sense of reality, and just as priests are there to bring other men to the awareness of the religious meaning of all beings, the artists are there to make other men realize the latent beauty of things. "What is called poetry," Ramuz says, "is the perception of the sacred. It is the need, after perceiving it, to make other men share in it, as in something present in all that with which poetry itself is concerned, that is in both beings and

things, the most humble as well as the most exalted ones, for indeed if the sacred is not everywhere, it is nowhere. And what does this mean, if not that all poetry is religious, that all poetry is a kind of religion?"

It takes an artist thus to see the actual world as a rough sketch of a more beautiful one and, so to speak, a permanent provocation to create it. There is no art without sensuality, but what poets love in women, at least when they love them as poets, is the very poetry which they will write about them, or even about something else, provided only it be written on their occasion. There is a well known theme of the "poetic flight" in the biography of all great artists. Who does not remember the poetic loves of Goethe and how careful he always was to run away from the women he loved as soon as he felt afraid really to love them! Then was for him the perfect time to write love poems. Goethe never married any one of his Muses; he married his cook, who never inspired him with a single line of lyrical poetry. What the true Muse should love in her poet is what he himself loves in her, that is the master-piece to be born of their love. For indeed, so long at least as he keeps faith with his own vocation, an artist sees the world as made up of beings each of which points to another one, which it already is, yet not quite, and which it can become but only through the transforming magic of his art.

Philosophers as well as poets have known this for a long time. Plato and Plotinus have forcefully stressed the fact that sensible things are but imperfect images of perfect types which alone are true reality. Every being points out its own Idea, and it is precisely this Idea which true lovers of beauty always perceive in things. They aim to make it such as it ought to be in order to achieve fully its ideal perfection. Leonardo could do it with a woman's face, but when Van Gogh did it with an old pair of shoes, he did exactly the same thing. In short, not unlike the priest, an artist finds himself confronted with a sacramental universe; he too celebrates a sort of cult by making other men communicate with him in the hidden beauty which he himself sees and which they could not see without him.

One would look in vain at Rodin's works for the slightest trace of Christian feeling. In so far as we know him through his writings, he had no religion at all, and yet he did not hesitate to say that "True artists are the most religious of all mortals." While other men live in the world of sense and see nothing in it beyond appearances, artists obscurely perceive in nature the presence of a secret world which can be known by neither sense nor abstract reasoning. "Lines and shades," Rodin says, "are for us but the signs of hidden realities. Beyond surfaces, our sight reaches up to the spirit, and then, when we draw their profiles, we fill them up with the spiritual content which they envelop." This is why there is an element of mystery in every masterpiece. True enough,

the first commandment to be observed by the sculptor is to know how to model well an arm, a torso or a thigh, but this is only a means to an end. The end is a revelation; the artist is its prophet, so that, in Rodin's own words: "Art is a kind of religion."

How wonderfully prudent Rodin is! He does not say that art *is* a religion, but he feels that an artist finds himself before a universe whose appearances express a spiritual reality, just as a religious soul knows that the humblest being betrays in its own way the divine omnipresence. As his own works are but many expressions of this higher reality, so it is most natural for an artist, not only to sacrifice everything to their production, but also to ascribe them a value far above that of a given reality. Each masterpiece proves for him the possibility of a better world, where language would have no other end than the joy it can give, and where sounds, colours, and forms, instead of merely pointing to urgently practical acts, would fill up our hearts with a never-to-be-deceived expectation of pleasureable beauty. We ourselves do not see them in a different light. Do we not enter art museums and libraries as some sorts of temples, or at least as highly precious and self sufficient worlds, crowded with many strange beings whose only function is to be a joy for ever? Do we not carefully collect, store and preserve these countless objects whose practical uselessness is perfectly obvious? From time to time, when one of them is for sale, it will fetch such prices that no single man, however, wealthy, could possibly buy it. It will then be bought by a group, by a city, sometimes through public subscription even by a whole country. Art is literally priceless. Wholly unreal, it puts to shame what is but reality.

Unless we realize this, we shall never understand what so many writers meant when they said that their lives were, in a way, as many attempts at holiness. At first sight, this seems a rather unfortunate simile. We have read so much about "La Vie de Boheme," wild life in Montmartre and Greenwich Village, that loose living seems to us inseparable from art. It is, up to a point. To break away from "la vie bourgeoise" and its hateful conventionalism is pretty much, for a young artist, what it is for a religious soul to renounce the world and to enter clerical life. In late antiquity, philosophers could be at once recognized by their garb. Still today men of God do not dress like other men, because they are not like other men, but the broad brimmed hats and the floating scarves of some old artists or even the childish disguise of some young "rapins" are not wholly unlike the external marks of genuine clerical life. Supposing it meant nothing more, this would at least signify their desire not to belong in the crowd of those who do not live by art.

Such caricatures of priesthood should neither be overlooked, for they have their significance, nor be taken too seriously. But things become

different when we have to consider a life *wholly* dedicated to art. This time, the "wholly" should be taken with the fullness of its meaning. Just like the young man in the Gospel who has left everything in order to follow Christ, or like the young Francis of Assisi giving up everything the better to imitate Him, the man we now have in mind is ready to sacrifice to art not only what he has and what he is, but even all those whom he loves. If he actually serves art as he might otherwise serve God, is he not a saint?

When they ask themselves the question, artists usually give the correct answer. They clearly realize the radical difference which separates the highest artistic life from true holiness, and it is that while the whole effort of the holy man is to turn himself into a saint, that of the artist is wholly spent in the making of his works. If he is an artist, the saint is to himself his own masterpiece. In other words, whereas the fruit of art is in what the artist makes, the fruit of holiness is in what the saint himself is. After bequeathing to posterity a priceless treasure of irreplaceable masterpieces, the artist may die a spiritual destitute. Not only is he nothing, but having completely put himself in each one of his successive works, he has never been anybody. The saint, not the artist, is well founded in repeating with dying Nero: *Qualis artifex pereo!* The greatness of art should not blind us to its misery, which is to sacrifice the man to his works.

Nothing could be clearer than this in the case of great writers and particularly of great novelists. The "Dominique" of Fromentin, who was both a writer and a painter, is largely an autobiographical novel; so his hero is speaking for Fromentin himself when he says: "I once told you, not long ago, that I had vague desires, not to be somebody, which is nonsense, but to produce, which is the sole excuse for this poor life of ours. As I said to you, this will not be (and I hope you understand this) in order to serve my own personal dignity, nor my pleasure, nor my vanity, nor other men, nor myself, but just in order to expel from my brain something that bothers me." The main trouble for such novelists is that unless they become successively all their main characters, these shall not live; but if they do become their own heroes, they themselves shall not live—at least in the sense that their own selves will consist in never having had a self of their own. This is what Gide frankly confesses in his *Journal:* "I willingly accept having no well defined existence, in order that those beings whom I create and draw out of myself may have one." And a little later, in an entry dated February 8, 1927, Gide notes that the whole heaven and hell of his characters are in the writer, save only this, that in order successively to become all his characters, the novelist himself, as a man, should be no one of them. One cannot even say that the novelist is

depicting himself, for being a novelist forbids him actually to be any one of the characters he describes. These are, so to speak, his virtualities: he might have been practically any one of them if, precisely, he had not been a novelist. "I no longer know very well who I am," Gide says, "or, if you prefer it that way, I never *am*, I *become*." In saying which, to say the whole truth, he still is flattering himself, because what Gide is always becoming never is his own "I" but that of somebody else. While Montaigne was writing his Essays, his "I" was becoming always more completely Montaigne, whereas the "I" of Gide is successively becoming Saul, Candaule, Lafcadio or the hero of the *Pastoral Symphony*. Montaigne was a much better writer than Gide, yet Gide, not Montaigne, is the artist.

Montaigne was a philosopher, and philosophy does not make saints; but one can at least imagine a Montaigne suddenly enlightened by grace and, at the end of his Essays achieving the kind of holiness which was to be Pascal's. If he were to undergo such a transforming experience, Gide could meet it at the end of his *Journal*, not of his novels. Very little indeed would be needed for him to achieve such a conversion; and even though, so far, this little has been impossible for him, he has obviously often felt the urgent temptation to achieve holiness. Just to give up art as an absolute value would be enough to free him from his obdurate will to be an artist and nothing but an artist. Surely it should be possible for any man to realize that unconditional surrender to art is, out of its own nature, a moral and metaphysical decision about art, the motives of which lie wholly outside the sphere of art.

This might even be a religious decision. Who has a right to judge Pascal going from church and visiting the poor, even though, as Paul Valéry maintains, that was for him the time to discover the infinitesimal calculus? What Pascal then discovered for himself may have been much more important for him than any new mathematical discovery of his could have ever been for us. It is likewise possible for the greatest of artists finally to realize that art is not in itself an absolute end. When he grew old, Michelangelo would sometimes wreck his own statues. Who does not deplore it? But who would dare to blame him? Even for him art was no longer enough. "Neither painting nor sculpture," he then wrote, "will appease a soul, after it turns toward a God of love, who once opened His arms on the cross to welcome us." After recalling this, in one of his own conversations, Rodin observed that these were exactly the words of the Imitation of Christ (I, I, 12): "This is the supreme wisdom, to go to the kingdom of heaven through despising the world." And indeed, what is the rest, but vanity?

Thus, unlike Valéry who never forgave Pascal for having betrayed higher mathematics, Rodin could both understand the art weariness of

Michelangelo and relate it to its source, which is the same as that of holiness in the Imitation of Christ. And this is probably the reason why, though himself supreme in the art of French prose, Valéry does not belong in the society of such artists as Rodin, Pascal or Michelangelo. He could not understand that what had made the true greatness of their art was something which his own had always lacked, namely that which shared in a higher spiritual order than that of art.

What Rodin has so well understood, he should also enable us to understand. The fact remains, however, that what is so clear in the minds of such poets as Dante or Claudel may prove harder to realize for minor artists, whose perfect craftsmanship does not wholly redeem a sort of spiritual shortsightedness. Driven as they are by their constant urge to make things, they live so to speak from work to work, courageously plodding their way through repeated fits of spiritual dryness with the constant fear that this work might well be the last, and that the dreaded time is come when inspiration has been exhausted. Above all, they hate those depressing times which come between the completion of one work and the beginning of the next. Is there going to be a next one? At any rate, so long as they are at work they feel happy. The thing which they make is theirs, part and parcel of their very being. It belongs to them, and they belong to it. *Du bist ich, bist mehr als ich ich bin dein,* the artist says to his own work in Goethe's *Künstlers Erdewallen;* "Thou art I; more than I; I am thine."

The whole substance of such artists has flowed as it were into the very creatures which they beget, nourish and finally bring to completion; and this is precisely why the creators themselves remain empty at the end of their labors. Mothers at least enjoy loving their children; artists cease to love their work as soon as it is born. They then love the next one, which they already feel moving within themselves and in whose birth alone they now are interested. What would happen to such men, if instead of ceaselessly pouring themselves out into their own creatures, they applied to the making of their own selves this tremendous effort? The question is probably vain, for if they did so, these men would not be the great artists they are. Yet this is not an absurd question, since Richard Wagner himself has answered it in one of his admirable letters to Mathilde Wesendonck: "If this marvelous gift, this strong power of my creative imagination did not exist in me, I could follow the clear knowledge and the longing of my heart: I would be a saint." This could not have been said better nor by a witness better qualified to say it. Yet, when all is said and done, a virtual holiness which dissipates itself in masterpieces, is not a holiness at all; and where, instead of remaining its analogical figure, it degenerates into its caricature the worst is to be expected.

We see this happening in our own times. Some contemporary artists do not seem satisfied with merely *making* things, they want to *create*. True enough, it is an accepted expression to speak of an artist as a "creator," but hitherto nobody had ever seriously believed that artists could really make things out of nothing. Not so today, when such poets as Mallarmé have conceived art less as an addition to reality or even as a revelation of its innermost meaning, than as a substitute for it. Now to think of art as superseding reality is inconceivable, unless he who so conceives it begins by mistaking himself for God. As Baudelaire once wisely remarked: "There are in any man, at any time, two simultaneous claims, the one from God, the other one from Satan." There is somethink radically unsound and truly diabolical in the surrealist's will to create through art, out of nothing, a self-sufficient reality.

Art itself has nothing to gain by such a perversion of orders. There is something truly divine in beauty and no human activity more closely resembles the creative power of God than the artist's power to co-operate, in his own way, with the divine work of creation. We know from Fra Angelico's example that an artist can also be a saint. A painter could become a saint not through painting saints but through painting old shoes, provided only that he paint them out of love for God. But an artist does not even need to be a saint in order to understand that, despite its eminent dignity, art is not absolutely supreme. As to those who, like most of us, are neither artists nor saints, they should not find it embarrassing to choose, because they have no choice. Between these two greatnesses, our own smallness makes it easier for us to discern the higher. At any rate, one certainly does not lessen the dignity of art by pointing out, around its highest masterpieces, the faint aureola of a missed holiness. Art is good in itself; perfect art is perfect in itself, but it has nothing to lose from being kept in its proper place. Why those pure tears in our eyes at the heavenly music of Mozart, of Racine or of Keats? Why this sudden and blissful surrender of our whole being to the peace which softly radiates from a Vermeer of Delft? A spirituality which we feel to be absolute in its own order is here merging in a still higher one, which contains them all. For it is not certain that pure art be prayer, but it certainly springs from the same source. All spiritualities flow back to their common origins, and in this sense at least it can truly be said that art galleries are temples, for beyond art itself they honor the Divinity.

# SOCIAL SCIENCE AMONG THE HUMANITIES

*Robert Redfield*

THE SOCIAL sciences occupy uneasy seats at the American feast of learning between the physical and biological sciences on their right and the humanities on their left. Sociology and political science hold the center, and do not often make formal connection with either group of neighbors. On the right, psychology is uncertain whether to emphasize its associations with biology or with social science, and geography makes a link between other studies of mankind and other earth-sciences. History and archaeology, often claimed by both groups between which we imagine them to sit, have their places immediately to the left of the other social sciences and connect them with the scholars of literature and the arts. And anthropology, a far-reaching claimant of territory of interest, will be found in one chair or another along the entire row. It sends representatives to the Social Science Research Council; it is seated with biologists and astronomers in the National Research Council; and it also has membership in the third of the three great academic federations, the American Council of Learned Societies, where it takes part in the work of the students of arts and literatures.

This distribution of seats does not produce a well-balanced conversational arrangement. On the whole social scientists in America have turned a rather cold shoulder to the scholars of the humanities who sit on their left hand, as the "natural" scientists on the whole have turned a not very warm shoulder on them. In part these attitudes express the hierarchy of status that exists among the disciplines. Like other differences of kind between human societies, those between disciplines tend to be regarded as superiority and inferiority. Certain sciences are "harder" than others, and so better. The "hardness" may have somehow to do with the intellectual difficulty of the discipline, or the mathematical character of the work. The prestige of economists as compared with some other social scientists appears to be so derived. But the "hardness" which goes with superior status also has something to do with the

ubject matter of the discipline: physical or biological subject matter is ppropriate to a "harder" science. Anthropologists and psychologists, narginal biologists both, are joined together in one of the sections of the American Association for the Advancement of Science, and do well here; but the section or sections in which other social scientists are grouped have little importance and low status. As for the students of rt and literature, they are of course unrepresented in the Association. The rough generalization which emerges is that nobody concerned with uman beings, as such, is felt to belong to the company of scientists. Only anthropologists, of the social scientists, are admitted to Sigma Xi, presumably because they have something to do with skulls; their interest n the attitudes and sentiments of men may be overlooked. These facts uggest a sort of antipathy felt to exist between the subject matter, umanity, and the method, science.

In Germany the social sciences and the humanities are often thought of as belonging together and the word *Geisteswissenschaften* then includes them both. In England common origins of the humanistic studies nd the social sciences in the study of the classical cultures are not forgotten. But in America the social scientists have for the most part urged nly their likeness to the "natural" sciences. Whatever the physicists nd chemists think of them, they think of themselves as similar to physicists and chemists. The claim of kinship, or even identity, is made by howing that the methods of the social scientists are the same as the nethods of other scientists. It is declared that the social scientists describe—which is true; they have nothing to do with values—which is ntrue. The social scientists have developed the use of questionnaires, ables, measurements and statistics. The building in which are housed he social sciences at the University of Chicago bears over its doorway a ext from Lord Kelvin to the effect that knowledge that can't be measured is meager and unsatisfactory. A social scientist put that text there. t has sometimes appeared that in order to succeed the social sciences vould have to become as much like physics as possible, and even that hey were succeeding.

The comparison of the social sciences with the natural sciences exclusively, and with the natural sciences in terms of the similarity of method, oes on so frequently and is made so competently that there is no necesity to repeat it here. Two recent treatments of the theme, one by Lewis White Beck ("The 'Natural Science Ideal' in the Social Sciences," *The cientific Monthly*, LXVIII [June, 1949], 386–94), and the other by Donald G. Marquis ("Scientific Methodology in Human Relations," *Proceedings of the American Philosophical Society*, LXXXXII, [No. 6, December, 1948], 411–16) show us that in their ways of formulating roblems and solving them there are only differences in degree between

the two kinds of sciences. Both writers are impressed with the similarity of the methods of the social sciences to those of the natural sciences, and both look forward confidently to a development of the social sciences in which the guiding example of the natural sciences will continue to be helpful.

Emulation of the natural sciences, and emphasis on formal method brought about the differentiation of the social sciences from other kinds of thinking and investigating out of which they grew. The detachment of psychology from philosophy by way of the laboratory, and the development of the social survey into the more precise methods that sociologists now have for studying communities, are examples of this development. The striving to make knowledge systematic and comprehensive is a good thing. And that social scientists teach their students how to perform such controlled observation and rigorous analysis as are represented in sampling and other statistical techniques, in the construction of questionnaires and tests, in the marginal analysis used in economics, and in the construction of indices showing the position of individuals in social classes, is not to be deplored. Every form of knowledge may become as precise and systematic as the application of its methods to its matter makes possible.

On the other hand, as Professor Beck says while himself illustrating the truth of his remark, it is fashionable nowadays to underestimate the differences between the social sciences and the natural sciences. In America at least, the emphasis on formal method and the imitation of the physical and biological sciences has proceeded to a point where the fullest development of social science is hampered. The emphasis on formal method sometimes carries the social scientist into exercises in which something not very important is done very well. There sometimes appears in the use of statistical methods in psychology or anthropology or sociology an exercise of the intellect in which nothing very much is found out about human beings or societies. The knowledge *is* measured; yet it is somehow meager and unsatisfactory.

The identification with the natural sciences alone shelters the contemporary American social scientist from a stimulation from philosophy and the arts and literature which social science needs. Partly because of this the sense of problem in American social science has diminished. Because small matters can be precisely done, large matters are left unconsidered. American political science has departed so far from philosophy that now in many departments of the subject central problems as to justice, or as to the relations of the individual and the state, get little attention. Anthropology, a science currently enjoying success in many fields of enquiry, has almost nothing considered to say as to the nature of human nature. And psychology, as Sidney Olivier complained, has

ing named itself the science of the soul, substituted the study of behavior —which is another thing.

The stimulation which the social sciences can gain from the humanities can come from the arts and literatures themselves, and through an understanding of some of the problems which interest philosophers and the more imaginative students of the creative productions of mankind. It is not argued here that the humanities have ways of studying mankind which social scientists should adopt. It is not denied that many academic students of Chaucer or of the French language emphasize the mastery of formal method to a degree that they too are shut away from the humanity of man and from consideration of the important questions about man. Pedantry and formalism are weaknesses of humanistic learning as of social science. What is here asserted is that the arts and literatures of the world are sources of understanding of man in society from which social scientists may enrich their insights and their sense of problem. It is also asserted that among the professional humanists are many whose work is so similar to that of many social scientists in spirit and purpose as to suggest that some deliberate cultivation of their common interests, now that the scientific character of the social sciences is well established, would enrich and improve the work of both. Let the social scientists turn and talk for a time to their neighbors on their left.

What shall they find to talk about? What have they in common?

The answer is simple. They have humanity in common. Humanity is the common subject matter of those who look at men as they are represented in books or in works of art, and of those who look at men as they appear in institutions and in directly visible action. It is the central and essential matter of interest to social scientist and humanist alike. As physics is concerned with energy and matter, and biology with organisms and life processes, so social science is concerned with the way men and women feel and act and think. Allowing for the fact that there is an aspect of humanity which may be understood when it is seen as a part of all animal life, it is the more important fact that the human qualities of our kind are so notably distinct as to provide a special terrain for systematic enquiry. In this field the humanist and the social scientist work together—in Montaigne's day there was no separation. If, in grouping the academic disciplines, emphasis were given today to subject matter rather than to method, the social sciences and the humanities would be one group, distinct from the other sciences. For the humanity of man is not the concern of physicists or biologists; it is the subject matter of these two other kinds of specialists, now too firmly kept apart.

Humanity is the central subject matter of social scientist and humanist as it is the central interest of mankind. As human beings, we care about

the human nature of man; it is more valued than is our animal nature; here theological doctrine re-states the view of common sense. What matters to us all, what we live for, is sympathy, understanding, imagination, reason, tradition, aspiration, and personal and human associations. Without these we cannot really undertake to continue to exist, and in our hierarchies of values they are placed above the satisfactions to our physical and biological nature. These last-mentioned come first, in our demands, only because they must come first that better wants be satisfied; but all of us, from the Andaman Islands to New York City, know that companionship, a sense of participation in an effort felt worthwhile, and the confidence of those dear to us are more precious than the absolutely necessary food and shelter. In China, certainly a land where men are hard-pressed to find a livelihood, Confucius is reported to have replied to one who asked him what was necessary in the governing of a people that although food, force and faith (or the confidence of the people) were necessary, the first two, as responsibilities of the state, might, at the worst, be dispensed with. But faith in one another we must have to become or to remain a society of human beings.

Of the social sciences, anthropology maintains the greatest sense of the complete human being. In the small communities where he characteristically works alone, the anthropologist seeks to describe all the little society before him, to tell everything about its people. So he keeps a view of the whole man. In his discovery, or re-discovery, of culture, and in the recent excitement in considering the personalities of men and women, the anthropologist finds the work of humanists at hand, congenial and enlightening. The late President of the American Anthropological Association, Dr. Ruth Benedict, told her fellow anthropologists that "the very nature of the problems posed and discussed in the humanities is closer, chapter by chapter, to those in anthropology than are the investigations carried on in most of the social sciences." (Ruth Benedict "Anthropology and the Humanities," *American Anthropologist,* N. S. L, No. 4, Part I [October–December, 1948], 585.) But as anthropology is a science "phrasing the study of man in terms of scientific generalizations instead of humanistic terms," she admitted her heresy while seeking to justify it.

There is much in current anthropology—the study of distributions of culture traits, for example—which is as remote from the humanistic study of man as is the marginal analysis of the economist. What we have today in the social sciences is a group of disciplines for the examination of special aspects of mankind, splinters of the whole broken off for their suitability for scientific treatment, and also a disposition, in many leaders of those sciences which treat of these specialties, to return again to humanity, to man as we meet him in daily life. The sociologist develop

methods for the study of population, and certain practitioners become engrossed in the perfection of statistical methods to the point where they do not often think of human beings. Yet in considering population policy, the ways of human beings, as wholes, are again confronted and must again be comprehended. Psychologists, having developed schools and procedures that reduce mankind to little bits of behavior delimited by test or laboratory device, find themselves, through psychoanalysis, again confronting a view of human nature that is at least coherent and demanding of consideration. And economists from time to time become so discontented with the limitations of formal theoretical economics that they push past its limitations. They fall to investigating and describing the actual motives and conduct of men, and before they know it they become sociologists or philosophers. One thinks of Sumner, Veblen, and F. H. Knight.

It seems that in spite of the exactions of scientific method, to which they are properly committed, social scientists cannot escape the fact that they are fundamentally concerned with states of mind. Social scientists are closest to their subject matter when they are concerned with feelings, sentiments, opinions, standards, and ideals. They are in fact usually concerned with these, even when the language does not apparently have that meaning. An "economic policy" means only that somebody intends something, and a "political machine" is only figuratively a machine—it is people, with hopes, ambitions, intentions, understandings. Neither a family nor a religion can be learned about by counting people or by measuring a house or a temple; these two are states of mind, and the influence and relations of the states of mind of some people with respect to those of other people. By talking about "the origin of magic," or "the diffusion of matrilineal clans," even anthropologists managed to get some distance from a recognition of states of mind as their subject matter, as Dr. Benedict remarks. Under the influence of the scientific method that was adopted by students of humanity in the nineteenth century, humanity was cut into pieces of nature as much like plants and animals as they could be made. But as each fresh effort is made to understand humanity, "as it really is," the thing turns out to be made of states of mind.

And of these states of mind, the schemes of values of people are central and of most importance. The anthropologist who goes to a remote community there to find out about it and report to us, would not do what we expect of him if he brought back only a list of everything the people had, did or even thought. A human life is a sort of structure of sentiments and attitudes in which first things are put first, and other things are held in lesser worth. It is this scheme of values which we must come to understand if we are to understand a man or a tribe or a

nation. As anthropologists have realized this, and have struggled with the problem of representing this structure of values, they have tried to find words for the relative order of values within the structure, and for the principal values which seem to give the lead to and to shape other aspects of life to their own nature. So we find anthropologists of today writing of "basic configurations," or of "themes of culture," or of "ethos and eidos," or of "the moral order." It is the choices that men make, the preferences they have, and the standards that they define explicitly or implicitly, which make up the central subject matter of social science. And these standards are moral, esthetic and intellectual.

But is not a concern with standards, moral, esthetic or intellectual, implied or expressed in every great novel, in the work of every great painter, and in the writings of great philosophers? So it is. However much the academic faculties of departments of humanistic learning may become engrossed with such lesser and formal matters as the choice of vocabulary in one writer as compared with another, or the more technical aspects of musicology, they have before them and must work with records of the search for excellence in some of the traditions of mankind. Both humanist and social scientist have access, through the study of materials both different and similar, to the systems of values that distinguish humanity.

To study states of mind, we need expressive documents. Whether we undertake the study of humanity as a student of the arts and of literature, or as a social scientist, we find or we make expressive documents. The materials of social science and of the humanities are essentially the same. A tool is expressive in that it shows the purpose of the user and perhaps something of the skill of the maker. In so far as it is a work of fine art it shows something still more significant: something of the standards of technical performance and perhaps of esthetic satisfaction. A personal letter is in many cases more richly expressive than a tool, and a curse, a chance remark, a word said in passion, a folktale and a novel—these are very expressive indeed. The answers written in a questionnaire do not express so much. In 1948 there was a revival of discussion as to just what is expressed by a man who replies to a poll asking him how he will vote at the presidential election. What the student of the lives of men, considered separately as individuals or collectively as social groups, must have, is expressive materials. If he seeks to describe these lives in systematic generalizations, it is his business, surely, to report formally and numerically whatever can be so reported. The anthropologist makes a census, or part of one, counts the houses and the people in them, and hopes to get enough cases of marriage so that he can give some figures as to the proportion of cases in which the couple settle with the wife's parents to those in which the home is made with

the husband's parents or somewhere else. Yet if he does only these things he will miss most of what he came for. When he gets a member of the group he is studying to talk or to write freely and naturally about the things that matter to him most—his family, his ambitions, his faith and his doubts—then the anthropologist knows he has at hand the materials that are most necessary to his work.

These materials for the study of man in society by the social scientist are similar to and overlap the materials that are used by the humanistic scholar. Art expresses the standards of form, of beauty, and, in cases, the interests, political or religious, of the makers. And the materials of literature and philosophy are in part the same as those of sociology and in part are different but related. The materials for the study of Stoic philosophy are the writings of the Stoics, and the materials for the study of Navaho religion and thought are the texts of rituals, of life histories and of interviews, written down by investigators or by Navaho themselves. The fact that the humanistic scholar generally stays at some university and draws his materials out of the library while the social scientist interviews the Indian or the Chicago precinct committeeman is not an important difference in this connection. Both are reading the words in which other men have expressed their states of mind, their schemes of values.

The very differences between the humanities and the social sciences show us the areas of interest where those differences cease to be. We recognize that the humanities are more specially and emphatically concerned with the products of creative imagination, particularly as produced by individuals conscious of their effort, than are the social sciences. The more spontaneous productions of everyday life, the tools and the institutions that grow up of themselves, as it were, interest the sociologist, the anthropologist and often the political scientist and the economist, more than they are likely to interest the student of the arts or of philosophy. The interest in a work of art, with reference to its manner of composition and its standard of excellence, is not so characteristically present in the social scientist; and it is the philosopher rather than the social scientist who deals with systems of thought as developed by reflective individuals. Nevertheless, we find no clear line of demarcation here either, and in anthropology one may find a Ruth Bunzel studying the esthetic norms of individual Pueblo potters and Paul Radin studying the philosophy of Winnebago Indians; and economics may produce a Harold Innis who writes like a philosopher. As to institutions, on the whole social scientists have described their forms and their workings, and have accounted for their beginnings in terms of previous social conditions and in terms of the communication of ideas from one group to another. Perhaps they will become more inter-

ested than they have been in the way in which inventions and institutions arise in the minds of particular individuals and what conceptions of excellence have guided these productions. If they do so, their work will again become more like that of the humanistic scholars. The juvenile court is, among other things, a work of creative imagination, and might be studied as such, as the student of architecture studies the building in which such a court may be housed.

The existence of psychology, in part a social science, and the great current scientific interest in studying human personality, prevent one from asserting too strongly that it is the humanist who is concerned with man as an individual while social science regards him as a collectivity. Yet it is true that the humanities, academically recognized, are characteristically concerned with the productions of the few, while the social sciences are for the most part interested in the productions of the many. It is partly a difference between an interest in what is common to members of a society and an interest in what is made by a few of them, and perhaps enjoyed by only a few of them. It is partly a difference between an interest in any and every product of man's collective life, no matter how good or bad it seems to the investigator, and an interest in what is better. A responsibility for the development of appreciation, for the improvement of taste, is more apt to be felt by a student of art and literature, as a part of his work, than it is apt to be felt by an economist or a psychologist or an anthropologist. The social scientist studies markets, cannibalism, ward politics, taxi dance halls, nursery rhymes and the art-forms and social life of the juke-box set, but is not likely to be followed in these directions by professors of art, literature, or philosophy. On the other hand folklore exists as a study of popular productions occasionally under humanistic academic auspices, and psychologists' studies of symbolic behavior are studies of the creations of individuals. There is more than a little in common between one of Freud's cases, as he wrote them down for us to read, and Lowes' study of Coleridge's creative mind, *The Road to Xanadu.*

The relationship which the social sciences have with the other sciences is of course undiminished by what has here been written about a relationship in another direction. The former relationship exists in the scientific point of view and in the similarities of method, as to both observation and analysis. The relationship with the humanities, as should appear from these pages, exists chiefly in the sharing of the same subject matter: humanity. This suggests one easy sentence in which one might perhaps summarize the two comparisons: Social science is a discipline with the methods of the natural sciences, and the subject matter of the humanities.

Like many other such easy sentences, this one is no better than an

approximation. It requires qualification in both its parts. By no means all of the subject matter that social scientists take up for study is humanity. As has already been recognized here, much that is around or outside of humanity they find to be their business too: population statistics; the market as a function of supply and demand; military power and its influence; congenital reflexes.

And the assertion that social science has the method of the natural sciences requires modification also. Social science method is like physical science method in that it describes; it does not evaluate. Like physics and chemistry it strives for objectivity, system and comprehensiveness. It uses precise methods where it can, and where it can it experiments, and where it can it measures. But it differs in its method from the methods of all the physical and biological sciences for reasons that follow from the difference in its subject matter. In most of social science, human nature is itself a part of the method. One must use one's own humanity as a means to understanding. The physicist need not sympathize with his atoms, nor the biologist with his fruit flies, but the student of people and institutions must employ his natural sympathies in order to discover what the people think or feel and what the institution means. This is what C. F. von Weizsäcker has in mind when he says, in "The Experiment,"[1] that a philologist trying to understand the meaning an author puts into a text, or a historian seeking the intention of an acting man, enters "as an 'I' into the discourse with a 'Thou.' This kind of meeting with its object, physics does not know, because it does not encounter its object as a subject. This personal understanding is a mode of experience which is accessible to us in regard to our fellow man; but not in regard to the stone, the star and the atom."

The management of this human sympathy, this meeting of the object as subject, is a part of the art or scientific craft of the social scientist. Years ago Cooley gave it the name "sympathetic introspection." It is a part of the scientist's art, and, one may add, it is also in cases a personal difficulty or problem, for the social science field worker experiences in that part of his professional life an internal conflict between the yielding to human sympathy, as required by his method, and the standing apart, as science requires, so as to look objectively at that with which he sympathizes. This is not a problem for the physicist.

What is this "humanity" that both the social scientist and the student of art, literature or philosophy strive to understand? In what that is susceptible of systematic observation does humanity manifest itself, and what are the most inclusive words that can be used to denote its principal manifestations? No generally accepted answer to these questions

[1] See pp. 35–47, this issue.

can be put on behalf of the social sciences or of the humanities. For the latter an answer would perhaps be a naming of the forms of art and thought which recur in many or all times and places. If the answer to represent social science should be sought of a social anthropologist or sociologist it might be offered in something like the following words.

Humanity presents itself to our scientific notice as it appears in all men; as it appears in particular individual men; and as it appears in the conventional ways of life of particular continuing groups of men. Three terms are commonly used, nowadays, to point in the direction of these three different but interrelated manifestations of humanity: Human Nature, Personality, and Culture.

Of the three, human nature is the most general, for it is, in its content, universal. It may be asserted that all (normal) men and women have the same human nature (although it is not proved or universally admitted that this is the case). But it cannot be asserted that all men have the same personality, or that all groups have the same culture; although it is properly asserted that all men have personalities, and that all continuing groups of people who communicate with one another are characterized by culture. By human nature we mean that nature which everyone (after infancy) of our species has, if provided with the usual capacities, when he is brought up in a society characterized by culture. It is the nature we assume we shall meet in every man or woman, no matter where we meet him, or her. We assume, and rightly, that every human being has something of which he may be proud, and something of which he may be ashamed. Before we have even tried to communicate with him, we know that if we hit upon what he finds amusing or shocking he will be amused or shocked; that he will desire praise, and that he will give up present pleasures for some deferred good which he values highly. We cannot predict these qualities of the animals we meet (unless domesticated dogs, having been made just a little human, are a small exception), but we know we shall find these qualities and many others in the tribe as in the city, among peasants as among princes. This human nature is a thing built up on the basis of that original nature which we can never see quite clearly in mankind because it begins to change into human nature soon after birth.

This important and essentially characteristic aspect of the nature of mankind seems never to have been very carefully investigated by any one who looked much farther than inside himself. In recent times some of the psychologists have learned a good deal about the mechanisms whereby original nature gets made over into human nature, and the study of this process from the point of view of those concerned with relations between persons in the family and the neighborhood, and

with the cultures of the groups within which the process occurs, has been enlightening. Some sociologists have collected material throwing light on the nature of human nature, and some have tried to study those exceptional members of our species, feral men, who grew up without acquiring human nature. But the content of human nature is not well understood.

Of course its existence is assumed by anyone who talks about human beings at all. It is a commonplace that philosophers and writers about social problems make assumptions about what human nature is like that vary greatly from one another, and the views of literary people on this subject are quite as various. One thinks of the different views of human nature suggested by Hobbes, Rousseau, Bentham, and Dostoievsky.

The anthropologist demonstrates the existence of human nature whenever he finds out what an exotic people are thinking and feeling. He can do this only by supposing that they have in common with him certain acquired propensities of attitude; these are human nature. To be able to find out what it is that a Zuni Indian is ashamed of, one must first know what it is to be ashamed. Although anthropologists commonly make assertions to the effect that "human nature is infinitely malleable," or speak of "the refutation of human nature," as an achievement of their science, they in fact recognize its existence every day.

The sources as to the nature of human nature are the records of human living. They exist in ethnography and in history; they exist in biography and in psychiatric case records; and they exist in creative literature. No one is more deeply engaged in the examination and understanding of human nature than are the dramatist and the novelist. In learning about human nature, men of literature and men of social science share a common effort, a common interest. It may be doubted if the results so far achieved by the social scientists are more communicative of the truth about human nature than are the results achieved by the more personal and imaginative methods of the artist.

The common interest of social scientist and of creative artist exists similarly in the study of personality, the organization of human nature and of culture in any particular individual. Here also it is the man of literature and art who has the longest interest in the subject. A personality wholly invented, like Madame Bovary or Huckleberry Finn, provides a record of a human individual that tells us much about the nature of human personality, of its development in relation to other personalities, and to events. A biography may be so written, as that by Hervey Allen on Edgar Allen Poe or that by Marquis James on Andrew Jackson, as to show much of those relationships between original tem-

perament, personal associations, the culture of the community, and the happenings of circumstance, as equally concern the students of personality who are social scientists.

It is perhaps in their common interest in what is called "culture" that the students of the humanities and many of the social scientists find their most obvious and fruitful field for co-operative endeavor. In considering this common interest of humanist and social scientist, one thinks of "culture" as the term has been developed in the comparative study of societies, in the sense which includes all the customs, institutions, and conventions whatsoever, "acquired by man as a member of society," in Tylor's familiar words. The conception is a sort of master-term that brings after it many of the more special concepts used by social sciences specializing in the study of families, markets, schools, law and so forth.

The difference between the meaning of the term "culture" as used by anthropologists, and the word as used by critics of art or literature, is not absolute; it is a difference of emphasis: anthropologist and humanistic scholar are talking about different phases of the same thing. As remarked in preceding pages, the student of the humanities looks especially at the thoughtful, deliberate, original and creative aspect of a people's life. So his meaning of the word "culture" brings it close to its original meaning of "cultivation." The social scientist looks usually at the spontaneous, common, average and less original aspects. His meaning of "culture" brings the word close to "folkways" or "customs." But the more original and deliberate phase of the anthropologist's "culture" is essential to an understanding of cultural change, and especially to that development out of and beyond a simple or primitive culture which we call "civilization." In the development of folk culture into a self-conscious and reasonably guided improvement of man and society, the essential nature of civilization is to be found.

So it is that the humanistic scholar studies culture chiefly as it appears in literature and art. He knows it principally in the more civilized development of a people that have a literature, and so a history and so also a consciousness of their esthetic and intellectual pursuits. He comes upon a culture from the top, so to speak. The anthropologist begins at the bottom, where the ordinary people work out their way of life without benefit of books or Socrates. The student of art or literature is concerned with the finest flowers on a tree whose roots are investigated by anthropologists. But it is the same tree.

It is something of a misfortune that in the organization of academic learning the two lines of study have come to appear as unrelated. The man who studies Restoration drama does not seem to have much in common with the student of Navaho witchcraft or the student of boys

gangs. It is rarely possible to bring together in a single university department those archaeologists who dig up the Maya and those who dig up the Romans. Yet both in the first case, in which the procedures used are so very different, and in the second, where the field methods are much the same, there is really one common subject matter: the investigation of cultures, always necessarily made manifest in expressive documents (an artifact being a kind of document).

Where might the humanistic and the social-scientific views of culture come together in more apparent and productive mutual stimulation? Such a joining together may be found in the application of science and scholarship to the study of the culture-civilizations of the Orient. There no long established academic tradition exists to separate the man who studies the books and the art, and the man who studies the village communities, the trade or the government. Or at least it may be said that so little study of the lives of the common people has yet been carried on that such work could well be developed in association with the study of the archaeology, history, art and literature of these Eastern peoples. The Western anthropologist or sociologist or student of government who chooses China or India as his field of work will have to learn an Oriental language, to read it as well as to speak it, and he will find his work enriched as he comes to consider the history and the art and literature of the more reflective representatives of that same tradition which appears to him in village life.

Where a literate civilization, with people who reflect and organize thought, is built upon a local popular culture, there is plainly but one subject matter. There a new dimension of human living grows out of the local folk life. This is the "culture" of China, or of India, in both senses. It is the culture and it is the civilization. This culture-civilization can be studied in part through the customs and institutions of the many. It can be studied partly through the art and philosophical writings of the few. And in the study the connecting links will appear: in the effects of Confucian, Taoist, Buddhist or Brahmin teaching in the village; and in the development and modification of ancient folk tradition in the more reflective writing and the finer art. In the United States we have come in recent years to speak of "regional studies," by which we mean the organization of teaching and research in terms of parts of the world characterized each by its way of life. Probably we mean not so much the study of a region as the study of a culture. Such a study might be completely humanistic, joining the way of study of the scientist with the way of study of those concerned with art and literature. We might say that for every such great culture there are two traditions, the Little Tradition of the village and the common people, and the Great Tradition of the reflective few. They are the two manifestations of humanity

as humanity is locally and anciently organized in that part of the world They have influenced each other, and one is a development out of th other. They can best be understood if they are studied together. To d this, social scientist and students of literature, art and philosophy wil work together. Then the social scientists, without leaving their necessar connections with the other sciences, will turn from these neighbors o their right hand at the table of learning to converse with those human istic neighbors who sit on their left.

# THE STATE OF INDIA

*Jawaharlal Nehru*[1]

OFTEN PEOPLE refer to the days of our struggle in India, and to the fact that I, of course in common with vast numbers of others, suffered during that period and spent a good part of it in prison. While I welcome your sympathy, I should like, with all respect, to tell you that that sympathy is rather wasted because the most significant period of my life was the time when I was engaged in the struggle—not only significant, but the time when I found some kind of fulfillment, and there can be no greater satisfaction to a human being than finding fulfillment in the work he does. Ultimately, perhaps, the only true joy for a person is to engage himself in some great cause, in some elementary work, and to give all his strength and energy to it. Even that is joy enough, but if some kind of fulfillment also comes, some kind of real satisfaction of the dream that has long been dreamt, then surely no other reward can be compared to it.

So I am grateful to you, but the real gratitude that I have felt for many years has been to my own people, who have lavished their love and affection and trust on me and my colleagues in India, and have made me feel very humble before their affection and trust. I felt then and I feel now that no individual is big enough to have that trust or that affection, and that it is a dangerous thing for any individual to be chosen for it.

Fortunately I am not much of a politician, and I am glad that I was introduced here less as a Prime Minister than as something else; because I am Prime Minister rather accidentally, or, in a sense, in a non-political way. I was thrust into politics because of the force of circumstances, not because of my free will, and there I remained because the circumstances continued, and there I suppose I shall remain some time longer because it is difficult to leave. But because of that approach to this problem, I do not feel exactly the politician's burden. I have burdens enough. But I feel a certain personal approach, a certain irresponsible approach, too, in which I can function to some extent, within my limitations, as I want to.

[1] An Address delivered before the Chicago Council on Foreign Relations and the Chicago Association of Commerce and Industry, October 26, 1949.

Some people imagined that I had some special design or sinister motive in my visit to the United States. My only motive or design was to fulfill my desire to come here and see the people and try to understand them. And I did more than that. I tried to understand them even from a distance by reading about them, by reading about their history and their struggle for freedom, about how they progressed and how they have reached their stage of unparalleled prosperity. I had read something about the great men of this country, and many people in my own country had been inspired by the examples of Washington and Jefferson and Lincoln, and others. It was so natural for me to desire to come here that it was surprising that it took such a long time.

When I came, and even before, I tried always to compare and contrast what I saw here with what I know and have seen in India. I contrasted their struggles for freedom. It was a pastime in those days for us to study the revolutions and other major changes that had happened in other countries, so that we might learn from them for our own struggle. We learned much from them; although, as you know, the manner of our developing our struggle was somewhat different and somewhat unique under the leadership of Mahatma Gandhi. It was not unique in the sense that anything that he said was very new; rather it was unique in applying certain things to masses of men and to a political struggle. That is, Gandhi applied certain individual standards and methods of working to large groups and millions of people. That was a new and tremendous experiment.

The Indian people are no better and no worse than others. They are neither angels nor devils. They are just ordinary human beings, and it was not possible for them to rise completely to what Mahatma Gandhi asked them to do. Nevertheless, it was surprising to what extent they tried to follow what he told them. Ultimately, in spite of setbacks, in spite of stumbling many a time, they did achieve their freedom by the methods he had chosen, and thereafter that great experiment was a success. It was a success not only in achieving what we had set out to achieve, but also—and this is well worth remembering—in achieving it in a way that left good will behind for everyone.

When there is conflict, whatever its result, there is left a trail of ill will which leads sometimes to future conflicts, and so there is an unending succession of conflicts.

The chief virtue of the method that Mahatma Gandhi taught us, and which we tried to follow, in spite of not doing as well as we ought to have done, was not only a certain achievement, but achievement of a significant kind, ending actually in good will and co-operation with those whom we had been in conflict with. That really was a very remarkable thing and, as I have said elsewhere, it is something which

ight help us all in considering the problems that often face us in the ider world.

In comparing and contrasting the United States with India, I read bout your early days. I saw how you came here, cut yourselves adrift rom what was then feudal Europe, and started more or less with a lean slate, with the ideas of freedom and equality, and built up this reat democracy. You had certain advantages which few other countries ave had, or are likely to have. You had a vast field to develop, and o old burdens to carry such as you had left behind in Europe. And et you could draw upon the riches and culture of Europe without its ntanglements.

And so you developed this country, and you tended to keep yourelves aloof from the troubles of the world. Why should you get mixed p in them? You had a hundred years or more to go on developing until ou arrived at your present stature. Then by virtue of that developent you were forced to consider other problems of the world, because he world became narrower and narrower with time.

India, of course, has an entirely different background. We are very ld as a nation. America has certain advantages and certain disadvanages. We also have both. Certainly our advantages are significant and ery helpful, and they inspire us. One of them is the history of our ace for the last few thousand years. As the disadvantages arise we try o remove them.

While you were developing fully the industrial revolution, which tarted more or less in England, and arriving at a peak of achievement n that direction, we remained lagging far behind, and could not delop our resources that way. Maybe it was our fault. Maybe the fault as that we were under foreign rule. Whatever the reason, the fact is hat we remained so.

In India we achieved freedom—political freedom. But the world, eanwhile, had advanced much more, and many conflicts were taking lace; thus political freedom was no longer considered quite enough, s it can never be enough for a starving person. He wants other necesties of life, and an economic element was added to that freedom, and ew ideals came into play which stirred the hearts of men.

While you had a hundred or a hundred and fifty years to strengthen ourselves and make yourselves prosperous and powerful, we in India ad to face the problem of both political and economic freedom more r less at the same time. We did not have, and do not have, that long eriod to develop. We have to solve those problems fairly quickly beuse if a big problem arises in a nation's life and is not solved, that roblem quickly tends to dissolve you.

I should like you to see India today as part of this complex world

or, if you like, of Asia especially. We have vast movements in Asia today. After two or three hundred years of foreign domination, Asia is rapidly getting rid of it. Little bits still remain, but I have no doubt they will be dispersed.

This period of foreign rule has led to arrested growth in India, as in many other countries of Asia, and many frustrations and problems have accumulated. So you see in Asia today vast movements, quite apart from the natural desires for nationalism and political freedom. They are primarily great movements dealing with the land, because unless you solve the agrarian problems arising from feudal conditions, it is difficult to make progress in any other direction.

I should like you to consider Asia in this context. I am trying to simplify the issue, of course. There are many other things, but there is too much of a tendency to think of conflicts in Asia on some ideological level.

The problems of Asia are, first, to achieve political freedom; secondly, to supply Asia with the barest necessities of life. If a country or if a large number of people have not got those necessities, then they think of them, and they do not think of other distant problems and ideologies. A few individuals might be concerned about them; a few might be excited about them; but, generally speaking, their ideas are bound up with how they can obtain those necessities of life—food, clothing, housing, health and education.

If in that context you see Asia, and rid yourselves of the many other confusing issues, you will probably understand the problem a little better.

Now if Asia is like that, how do you propose to deal with it? Obviously you cannot deal with those vast masses that have now rid themselves of foreign rule if you try to use compulsion in any large way. It simply cannot be done. You have to understand them. You have to influence them, if you can. But essentially, you have to win them over by understanding them, and by making them feel that their wants and urges will be fulfilled if they follow a particular course.

Somehow, in the last thirty or forty years, because of two World Wars, our minds seem to run in terms of force even more than they used to. I know that as the world goes today it is a little difficult to do without force. In any event, if force is used for evil purposes, it has to be countered by force. Nevertheless, it is a major error to suppose that the problems of the world are solved by force. Even past history does not support such a view.

Certainly, when large numbers of people are on the move, as in Asia, to think that by force you can make them do this or that seems to me to ignore the reality of the problem. If I may give a parallel

o open a lock you have to try to do so with a key; you don't go about ammering it. The method of using force to influence people is just ike using a hammer on a lock.

I speak of Asia, but the same argument applies elsewhere. The fundamental problem, so far as Asia is concerned, is nationalism. That is he dominant urge. I know that nationalism in its extremist form is a dangerous thing. Nevertheless, until political freedom is won, nationalsm remains the strongest urge for a country. Whatever may have been done in the past, it is not possible today to suppress nationalism for ong by force, and the sooner that national freedom is established in very part of Asia, the better it will be for world peace.

The second problem is an economic one, which also applies to large arts of the earth's surface. Unless certain fundamental economic urges re met, there is bound to be discontent and trouble. How are they to e met? They can't be met by doles and charity and what might be alled humanitarianism and the like. Occasionally, outside help may e given if there is some trouble, but essentially the problem must be olved by the people themselves.

If by any chance political freedom had come to us without our strugling for it and without our achieving it by our own effort, it would ot have been worth while. We would not even really have had it, ecause I do not think we would have been able to preserve it. Anyhing that is worth while must be worked for and obtained by one's wn effort.

I do not want any help from America in the sense of getting somehing for nothing, in the sense of not working for it in India. I know hat will not be good for India. I think it is good for India, and good or the United States, as for other countries, to work together. I am onvinced that in the world as it is today it is impossible for one to solate oneself, but there is something more important than that. Even he most prosperous countries in the world are likely to suffer because ther parts of the world are not prosperous and are dragging them own. You cannot isolate and separate these things today. Co-operation s a thing which brings about mutual advantage and mutual benefit.

After spending a great deal of effort for our freedom, we did not ink merely of political freedom. The problem always before us was e problem of India's poverty. How that poverty came is a long story nd does not need repetition here. But the main problem before us ven in the days of our struggle for political freedom was how to reove poverty and unemployment and to build up India so that it ould be a prosperous country.

As soon as we achieved freedom we wanted to divert all of our eneries and strength to this other purpose. Unfortunately, upheavals fol-

lowed hard on the partition of India. Vast migrations came, and w had to look after six million refugees. All the big projects we had fo the advancement of India have had to be postponed for a time. Bu they are only postponed, and we are going to go ahead with them i spite of all the difficulties that have arisen—the latest, of course, bein the devaluation of various currencies. We are determined to achiev that economic success that we aimed at, and I have no doubt that w shall do so. The question is, how best to do this; how to do it as rap idly as possible. Obviously we could do that with the co-operation o other countries sooner than otherwise.

In this context I am often asked questions about foreign affairs, an as one of the organizations sponsoring this meeting is the Chicag Council on Foreign Relations, I should like to say a few words abou foreign affairs.

What do foreign affairs mean? Presumably foreign relationships, fo eign co-operation, even foreign conflict.

It may have been possible to be more or less isolated in the past, bu it is clear that this cannot be done today. Countries overlap in thei activities, and they cannot just ignore each other. In the world toda everything tends to be on a world-wide scale. People, of course, hav talked about world order and a world state, and I have little doub that some time or other some such world state is likely to evolve. Ho or when, I cannot say, but the alternative to that, it seems to me, is world disaster of unparalleled magnitude.

Now our tendency in India, like perhaps your tendency in earlie days, is to concentrate on our own country, to work for it, to build up brick by brick, and not to get entangled in anything else. We hav enough work to do. We are not interested in what may be called th leadership of Asia, or the leadership of any other part of the worl We are just interested in building up our own country. So naturall we try to avoid entanglements everywhere. We were entangled in different way when we were under British rule. Having come out o that we want to sense this freedom of no entanglements.

Apart from that, we are fortunate in some respects, partly due t British rule if you like, in that we have no particular ties with an country except friendly ties. We have no complications, no conflict Why should we, of our own free will—unless circumstances compel u —tie ourselves up, or make enemies, or otherwise get into these enta glements?

Our natural inclination is to remain apart from any troubled are or any problem which does not immediately affect us. Now that is quit natural, but it is also quite impossible, for India's geographical situ tion is such that we cannot escape anything that happens in Weste

Asia, Eastern Asia, or Southeast Asia. Whether it is in terms of war or in terms of peace, we cannot escape it. Whether you look upon it from the economic viewpoint or otherwise, anything that happens in Southeast Asia, in China, is of great significance for India, because we are in such a central position. We can't escape the burdens and responsibilities which that position brings to us.

Even in the two years since we achieved our freedom, we have had to develop our foreign relations; and, in spite of all the difficulties, we have had to send our ambassadors and ministers to nearly every important country in the world. In other words, whether we want to be important in foreign affairs or not, that great responsibility has been thrust upon us, almost against our will. We now have to face it.

There is another side to this matter. For the last thirty years, in our national struggle and after, we have worked under the influence of Mahatma Gandhi. He gave us a definite policy, a definite outlook for our national struggle. Naturally, any policy that we may pursue now flows from and is powerfully influenced by his work.

Even in our national struggle our policy was one of peace. Peace is now our primary endeavor, our first urge, because we want peace to develop in our own country. And we want peace in the rest of the world, because if there is war we are likely to get entangled in the struggle. Therefore, our foreign policy is essentially based on the maintenance of peace. We know that we are perhaps not strong enough to make a great difference in world affairs at present. If we are not strong enough to make a great difference in favor of peace, then neither are we strong enough to make a great difference in favor of war. We prefer to take the former alternative, and to try our best, until circumstances compel us to do something else.

Personally, I think that the United States—I have been quite convinced in the last two weeks or so—has a very vast majority of people strongly desirous of peace. I suppose that is true of the greater part of the world. Yet it is a not unusual situation that while people want peace, events force them somehow in the other direction, or it may be that statesmen controlling or partly controlling those events push them around in that direction. Now that is an odd situation, and I do not see (speaking not as a Prime Minister, but as an individual) why I should be pushed about by any events in a direction in which I do not wish to go. I do not propose to be pushed about in so far as I can help it, and in so far as my country accepts my argument. I know that it may be difficult to keep to that position, and events may be too strong for me, as they often are.

If that is so, then someone will have to be the judge of those particular circumstances in that particular moment; but before that time

arrives, I think it is the duty of all of us, whether we are politicians or statesmen or common citizens, to direct events in so far as we are able.

May I just tell you of one lesson which helped us tremendously in India in the early days of our struggle? In those days we were weak, and we had a powerful empire governing us. The great question was, "How can we oppose it?" If anybody raised his head it was struck down. Then Gandhi came and told us not to be afraid. It is a very simple thing to say; but there was something in him, something in his voice, in his eyes, and in the way he said these things, that had a powerful effect. It is an extraordinary thing how that sense of fear vanished from the Indian people, because they realized what could happen to them. They could be jailed. They might be shot at and perhaps killed. Their property might be confiscated. After all, one could survive all those things except death; but why be afraid if it came one's way? It sounds naive, but it worked that way, and there was a magical change in India. The British Government of the day didn't quite know what to do about it, because a state can only govern so long as people are afraid of it. The moment a people are not afraid of the state, the state, with all its armies and navies, cannot put them down. They can kill them, but they cannot put them down. That fact is worth repeating and worth remembering.

Now I am surprised at powerful states having a sense of apprehension and fear, when we, a weak and unarmed people with no strength behind us, could rid ourselves of fear and face an empire. If we all approach this problem not simply as idealists, because pure idealism makes us lose touch with reality, but with the feeling that idealism also is necessary in the modern world, we can get rid of this fear. I think it is quite possible that we can thereby get rid of this war complex which fills the minds of many people.

There are many problems apart from India. There is, if I may so refer to it, the rather essential problem of nationalism *vs.* internationalism. Internationalism is growing and must grow. On the other hand, internationalism can grow effectively only after nationalism has achieved its objective. You cannot have internationalism when there are conditions which provoke nationalism. After national freedom has been obtained, other forces will begin to function.

The second big problem, and the problem which probably affects advanced countries more than others, is the growth of centralization and the preservation of individual freedom. The modern world tends to grow more centralized, politically and economically, at the expense of individual freedom. You cannot act independently in every area, but there is no doubt that too much centralization limits freedom.

There is the extreme example of centralization in the Soviet system,

which means regimentation of everybody under the very powerful state apparatus, and individual freedom ceases to exist—whatever the virtues of that system may be. That is one extreme example in the modern world. But, quite apart from Communism, there is a tendency for extreme centralization to limit individual freedom. How far other benefits may compensate a group or an individual for loss of individual freedom I do not know. Personally, I would not like to lose my individual freedom for any other benefit. But there are limits, of course, to individual freedom.

I do not think that humanity can ultimately advance if individual freedom is strictly limited and regimented. The great advances have come not only from raising the level of the group, but also from individuals who have helped to pull the others up by going far ahead of humanity, whether they were geniuses, or prophets, or great scientists. Individual freedom is therefore essential, I think. To some extent it has to be circumscribed, if we live in society and function together, but only to the extent that it is necessary to circumscribe it. At the same time, one cannot have individual freedom when the means to maintain that freedom is lacking. You cannot ever have individual freedom if the economic conditions are bad. That isn't freedom. A starving man is not free in the sense of modern political freedom for which man has worked so long.

The second thing that becomes more and more powerful and moves masses of people is a social-economic ideal. Unless any political or economic scheme that is put forward satisfies that social conscience of the world, it is insufficient, regardless of how you may justify it. When vast masses of people are awake and realize their own pitiful condition and are not prepared to submit to it, it becomes exceedingly important that any steps we may take should satisfy that social conscience, not in immediate fulfillment, although that too is desirable as soon as possible, but they must give assurance that we are marching toward that aim. That is very essential because unless it is done, those people are apt to look in other directions and seek other slogans.

Some of us, especially those who are in responsible political positions, have to face such problems daily. And we have little time to think about the wider and more basic problems that affect the world. This is unfortunate, because the result is that we tend to lose all perspective, either in relation to the past or the future. We deal with the problems as they arise from day to day, and get more entangled without seeing where they lead.

Among other things, we who are in politics tend to forget that whatever we may do, whatever we may aim at, it is essential that we should adopt the right method; because otherwise we are apt to be led astray

and not reach our objective at all. That is one of the basic teachings of Mahatma Gandhi. I do not mean to say that we have been able to follow it very well, but certainly he has left the imprint of that teaching on the minds of the people of India. It is not a new doctrine—that you can never justify even a good end by a bad means, that the means govern the end. It is not normally a political doctrine for any country, or any politician. Nevertheless, I think that if those of you who are scientists would think about it, you would agree that a certain cause produces a certain effect. If that is true, how possibly can an evil cause produce a good effect? It seems clear to me that if we follow an evil path, even with good intentions, and are thinking in terms of a good result or a good end, that path itself cannot lead us right. That path, being not straight but crooked, will lead us to some entirely different design.

Obviously, therefore, when we indulge in wars the result is inevitable. We follow all kinds of crooked courses, although the objective may be quite right. By its nature war is full of deceit and lying and violence. We may have to have war if we are forced into it. That is a different matter and cannot be helped. The whole point is that we are entirely mistaken if we think that war can solve a problem. We have had two World Wars, and each was fought in the hope that it would be the last war, and that it would solve the major problems of the age. We see now that the major problems remain, or, if you like, new problems have arisen worse than the old, and that we face the issue again and still think in terms of war. It appears to be a fantastic way of proceeding, because we do not seem to profit by experience. Wise men, it is said, profit by other persons' experience, but what are we to say about our present generation which refuses to profit even by its own experience?

I do not think there is going to be a war in the near future, in spite of all the talk of war. But war can only be prevented ultimately by clear thinking and by vigilant action, and, above all, by not giving way to this totally unnecessary fear about war. Working for peace means removing the causes of war as far as we can. We can't remove the causes of war in everybody's mind, or if some people wish to act wrongly we can't prevent them. Nevertheless, we can help remove the major causes of war, and among the major causes are the lack of national freedom, racial inequality, and want and misery.

Those people who you may think want war, or want to commit aggression, can only succeed if they can influence large masses of human beings—large masses who are upset, or who have grievances because they are not free, or have been denied equality. Such people are influenced not because of some doctrine, but because of some kind of

idealistic appeal that is made to them in accordance with the particular urge they have. Therefore, if we remove these major causes or try to remove them (we cannot do anything by magic, but we can work to that end), I think that the power of mischief of those people who may want war will be reduced very greatly; and it will not be possible for masses of men and women to be pushed in the wrong direction because their desires are not satisfied.

I have spent a good part of my life in India's struggle for freedom, and we have achieved something—not the kind of achievement that we wanted, but still we have had fulfillment of part of our dream. We still have hard work ahead because it has been only a partial fulfillment. We propose to go ahead with all our strength and energy to solve the economic problems of India. We propose also, to help the cause of peace in the world, as far as we can. Obviously, in the present context of things, it would be of great help to us to receive co-operation from people of good will in other parts of the world.

The United States has achieved a tremendous position in the world today, and from that follows a tremendous responsibility. My own impression, if I may say so, is this: large numbers of people in the United States are fully conscious of that responsibility, and are eager and anxious to discharge it worthily. I think that is a very good sign for the world.

If only we could get rid of this fear complex and face these other problems, there would be no doubt that we could solve them. The world has enough resources in its hands today to solve them fairly rapidly if only it would apply these resources to the right ends, and not waste them in merely fearing and preparing for war, and wasting the world's substance in adding to the weapons of destruction. If that waste is stopped, if even moves are made in that direction, I think there will be a tremendous change in the whole atmosphere in the world.

## DISCUSSION

*Question:* Do you think the United Nations will be adequate to maintain the peace of the world, or will it be necessary to achieve world government?

*Prime Minister Nehru:* It is both a difficult and a simple question—difficult, of course, as to what are the ways and means.

A world government ultimately ought to come, and I think it some time or other must come.

The United Nations today, however feeble it may be, is the only way the world is trying to co-operate. Now, I do not see why we should ignore that fact, or lessen the authority of the United Nations, or

weaken it in any way, because that is the only thing which may develop into a world government.

I don't think you are going to develop a world government by just passing resolutions about it. It is much more difficult than that, and if it is easier to change and strengthen the United Nations and make it develop into a world government than to scrap it and start afresh, that should be done.

*Question:* What about the caste system?

*Prime Minister Nehru:* I don't quite know where to begin, because if I really answered it properly I should like to tell you something about its origin and development, but that is too long a story. It had a craft origin and it petrified itself in a very bad way and became a very evil thing. The caste system in India is disappearing pretty fast. Probably you are thinking of untouchability, and the like. Well, untouchability, first of all, was practically confined in its major forms to parts of South India. It didn't occur in that form in the rest of India. In some minor forms it did occur in North India. In any event, it is fast vanishing because of various reasons. For the last thirty years, at least, if not more, there has been a very big movement, also headed by Mahatma Gandhi, for its liquidation and complete ending. That has had a powerful effect. Also, secondly, many modern developments have had the same effect. There is no caste system in a factory. Everybody works there. Take railway trains—everybody travels in them. There is no segregation in railway trains, tram cars, or the like. It may be in the past there have been temples or other places where so-called untouchables were not admitted. But that, too, has gone. The whole caste system has been weakened tremendously by propaganda and otherwise.

What the caste system really involves is intermarriage. Now, we can't force people into marriage with each other against their wishes. But apart from that, wherever it affects social life, and otherwise, it has been made illegal. Untouchability has been made completely illegal.

*Question:* Since you believe that the removal of economic want safeguards democracy, do you think a plan similar to the Marshall Plan if provided in India, would speed the advancement of democracy?

*Prime Minister Nehru:* Exactly how the Marshall Plan would be applied to India is not quite clear to me. What India would like—her present need is (apart from the immediate need of food) development of her various resources which she has in plenty. India potentially is a very rich country. Only her people are poor for the moment. We have good manpower, which trains easily to do any kind of precision work, or industrial work, or any other work because they have been

very fine craftsmen. We have enormous resources in the soil and we have only to harvest them. We want machinery and we want technical help.

I should imagine that President Truman's Point Four would be very helpful in regard to technical help. We should like machinery and so forth, and such things to be supplied on terms which we can afford or on some deferred payment system, or something like that.

That is all that I think is necessary so far as India is concerned.

Now, I might tell you about this question, because we, having recently got out from under British control, naturally have, in India, a feeling of suspicion that may not be justified. We have been under domination until recently, and whenever anything happens that might appear as some kind of domination, the people of India feel it is better to delay doing something rather than endanger the freedom of India they have just won.

# COMMENT

In this first issue of MEASURE, Mr. Guttmann provides a picture o human decadence and shame that is too readily denied or forgotten We have become callous to horrors inflicted by men on other men whicl would have aroused our grandfathers and our fathers. It is well w should be reminded that the last fifty years present one of those period of degradation and evil of which history and the Bible alike offe enough examples.

It is not Mr. Guttmann's intention to lead our American readers int complacency by his emphasis on European decadence and by the specia hope that he places at the end of his article on the United States. W share this hope, but some of us fear that we are more likely to betra it by feelings and expressions of self-righteousness than by the practic of self-criticism. "There but for the grace of God. . . ." The Unite States has hardly escaped material abundance and optimism—a prelud in Europe to the general destruction and ruin which are so overwhelm ingly visible in most of Germany today. The industrialism on whic we pride ourselves, and upon which we have gambled our lives, wa born in Great Britain and triumphed there and in several Europea countries, above all in Germany, earlier than in this country. Now th nations of the world have been drawn as close together as were thos of Europe half a century ago. The United States has not escaped th weaknesses which beset and the dangers which confronted our Europea forebears. The special tragedy inherent in nineteenth-century civiliz tion lay less in its wickedness and despair (for the Europeans ha then, and have now, no monopoly of either) than in its unrealizabl hopes of limitless prosperity and human goodness.

Among the lessons which we need to learn from European thoug and experience, those which warn us of the dangers of "overoptimism concerning the goodness of human nature and the benefits flowin from increased production (measured by volume) are not perhaps th

least important today. Natural science, with its fruits in longer life and greater output, has been the handmaid of modern optimism and abundance. These fruits have helped to hide another consequence of science to which Professor von Weizsäcker draws attention in the last section of his article. He shows how easy it is for the scientist to serve evil, even without recognizing what he is doing. "The love of the scientist . . . ," Weizsäcker writes, "in its matter-of-factness, is capable of the highest degree of cruelty."

More than a century ago Chateaubriand called the attention of Europe to the fact that the leading French scientists, "the Laplaces, the Lagranges, the Monges, the Chaptals, the Berthollets, once proud democrats, became the most obsequious servants of Napoleon." In Chateaubriand's time the rôle played by the artist and the man of letters in Western civilization was great, and to the honor of the writers it was freer and far more independent of politics than the rôle played by science. Today, with the growing ascendancy of science and technology, the place of art as a factor in our civilization has shrunk.

Art, whether that of supreme artists or of craftsmen employed in the service of beauty, has never been nourished on excessive optimism concerning man. Nor does art contribute, as science does, to the almost unlimited increase in volume of production. Whatever his shortcomings as a man, the artist, like his work, cannot become the tool of evil as readily and unintentionally as can the scientist. To science as such human tragedy is irrelevant, but it is the stuff of art. The main justification of natural science in the modern world has become the tangible practical success that it brings. But in art, as Professor Gilson writes in his essay, "success does not prove anything. The truly creative artist never has any public, because to be creative he has to be ahead of his public."

It is the task of intellectual leadership to impress on the peoples of the earth a sense of their common humanity. By their nature, scientific inquiry, engineering and surgery are inadequate means to such an end. Intellectual leadership is a function of the thinker, the artist and the man of letters. Authority cannot perform this function; it can only suppress it.

We are not gods but men. Let us conform to our measure. Only by recognizing that human experience is by its nature tragic, can we hope to make the overwhelmingly powerful engines science has given us, instruments fit for human use.

J. U. N.

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